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Missouri Medicine

JOURNAL OF THE MISSOURI STATE MEDICAL ASSOCIATION



JANUARY, 1976
VOLUME 73, NUMBER 1

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MDS

Scientific Articles

- PROLAPSING MITRAL VALVE SYNDROME: A FREQUENT AND IMPORTANT CONDITION, Brent M. Parker, M.D., Michael Huntington, M.D., L. Monty Willson, M.D. and John R. Stone, M.D. 17
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- PRELIMINARY PROGRAM, 118th MSMA Annual Session 10

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118th MSMA Annual Session
April 1-4, 1976, Kansas City

Both often



Predominant
psychoneurotic
anxiety

Associated
depressive
symptoms

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Tension and anxiety states; somatic complaints which are concomitants of emotional factors; psychoneurotic states manifested by tension, anxiety, apprehension, fatigue, depressive symptoms or agitation; symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in skeletal muscle spasm due to reflex spasm to local pathology, spasticity caused by upper motor

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respond to one

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in psychoneurotic
anxiety states
with associated
depressive symptoms

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Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle

spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.



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Missouri Medicine

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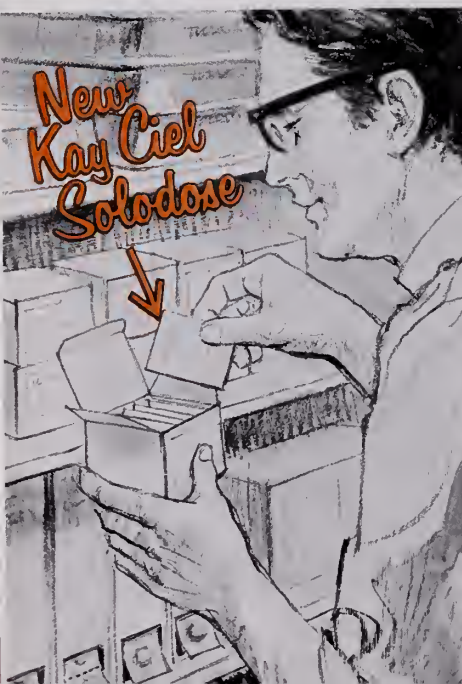
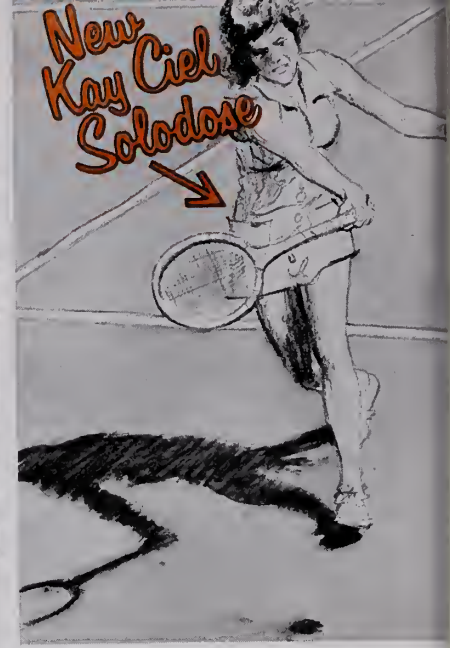
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NEWS

ROUND - UP

JANUARY, 1976

8 malpractice bills in Legislature

Following months of testimony and research, two special Missouri governmental bodies have placed eight bills before the General Assembly in an attempt to come to grips with the malpractice insurance crisis.

The MSMA Council, on the recommendation of the Legislative Committee, has urged all members to support the three bills pre-filed by the Senate Select Committee on malpractice and the five House bills pre-filed by the Governor's Task Force on Malpractice. The MSMA and other physician groups had input into the drawing up of these bills through hearings which were conducted across the state.

Physicians are asked to visit with their State Legislators, explain the malpractice insurance problem and how it affects not only the doctor but also the patient through higher costs, and ask the Legislator how the physician can assist passage of corrective legislation. Explanations of the malpractice crisis and possible solutions have been published in MISSOURI MEDICINE over the past year, but members requesting additional information on the subject should contact MSMA Headquarters.

Briefly, the pre-filed bills are:

Senate Bill 470 — Would retain our excellent Statute of Limitations for the filing of malpractice suits by adults — "two years from the act." Minors, who now have until two years after they reach age 21 to file, would revert to the adult statute when they reach age 6.

Senate Bill 471 — Would establish medical malpractice review boards in each Congressional District in Missouri. This panel would consist of three physicians and three attorneys. A Circuit Judge would serve as Chairman. It would be necessary for all malpractice suits to proceed through this panel before going to court. The findings of the panel would not be admissible during the trial. A mechanism that would utilize the panel's recommendations after the trial is included. Hopefully, this legislation would reduce the large number of nuisance claims or at least prevent many of them from proceeding to trial.

Senate Bill 472 — Would give the State Board of Registration for the Healing Arts powers that it does not presently possess but that are badly needed. A physician's license could be suspended or revoked for reasons of medical incompetency or by the use of treatments that are contrary to medical standards or the consistent utilization of services which are medically

Malpractice survey returns flowing in

Returns are already flowing into the MSMA Headquarters in response to a statewide survey on the feasibility of forming a mutual assessment malpractice insurance company.

Each MSMA member is urged to fill out the questionnaire and return it to MSMA Headquarters as soon as possible. The material on the questionnaire will be kept confidential, but a large turnout of survey participants is needed if the results are to be properly evaluated. If, for some reason, you failed to receive a copy of the survey and the accompanying information, please contact MSMA Headquarters immediately.

The formation of mutual assessment malpractice companies was made possible by the passage of Missouri Senate Bill 458 in the last General Assembly. However, this was merely enabling legislation and the MSMA must determine the feasibility of such a company before deciding whether or not to proceed.

inappropriate. The Board could also compel a physician to submit to a medical competency re-examination.

House Bill 1306 — Defines informed consent to treatment. Recommends that the law relating to informed consent be partially codified. This is a statement given by the patient consenting to treatment after being adequately informed of its need and the risk involved with the procedure in order to make an intelligent decision. Recent court decisions place the duty of disclosing this information on the physician. Perhaps physicians need guidelines for the consent statement which would establish that the patient consented to treatment after receiving adequate information.

(Continued on Page 3)

Dr. Hubert Ritter to seek position on AMA's Board

The Missouri State Medical Association has announced the candidacy of Hubert A. Ritter, M.D., for a position on the American Medical Association Board of Trustees.

Dr. Ritter, a Delegate to the AMA, is a board certified obstetrician-gynecologist in private practice in St. Louis, Mo., where he heads a three-man group. He is an Associate Professor of obstetrics-gynecology at the St. Louis University School of Medicine and is actively engaged in teaching.

The 51-year-old physician has long been active in organized medicine on the county and state levels, has been an outspoken advocate of free enterprise and has been an active critic of governmental interference in the practice of medicine. For the past five years, Dr. Ritter has been a member of the AMA's Speaker's Bureau.

"Criticism of health care delivery has become the favorite topic of Congress," stated Dr. Ritter, "despite numerous surveys which show the general public is more than satisfied with their medical care."

Because Dr. Ritter feels the various legislative bodies have so much influence over the future of medical and health care delivery in the country, he has strongly committed himself to the Political



Dr. Hubert A. Ritter

Action Committee movement at both state and national levels.

Dr. Ritter is Chairman of the Missouri Political Action Committee and served in that position when MMPAC won the AMA's All-Events Award for Membership in 1973.

Dr. Ritter is Past President of the St. Louis Medical Society and is presently serving as Chairman of the Society's Committee on Medical-Legal Affairs. Through this committee, he has worked with the Metropolitan St. Louis Bar Association in the establishment of a combined Medical-Legal Review Committee which has actively served to deter the filing of non-meritorious medical malpractice lawsuits.

MSMA members responding to CME program

Approximately 30 MSMA members have returned their initial Continuing Medical Education (CME) folders mailed to the membership in late December. The folders showed varying numbers of credit hours in all categories of CME which these physicians had completed during the last quarter of 1975.

MSMA members participating in the voluntary CME program are asked to carefully note their CME hours on the folder and return it at the end of each quarter (March, June, September, December) or whenever the folder is completely filled in.

Comment from a few members has indicated that the MSMA program is a duplication of some medical specialty CME programs. Actually, the MSMA program is designed to coincide with the AMA Physicians Recognition Award. It provides those members who belong to specialties which do not conduct CME programs the opportunity to earn CME recognition from the MSMA and the AMA. Also, those members who qualify for the American Academy of Family Physicians award, can apply prescribed AAFP hours toward the MSMA-AMA award if they desire.

To date, 10 hospitals and institutions have been accredited to provide Category I CME credit. These are: Doctors Hospital, Poplar Bluff;

Menorah Medical Center, Kansas City; Ed Bixby's Institute of Postgraduate Education, Kansas City; Regional Medical Education Center, V.A. Hospital, St. Louis; Reproductive Biology Foundation, St. Louis; M.U.-Columbia School of Medicine; M.U.-Kansas City School of Medicine; Washington University School of Medicine, St. Louis; Department of Psychiatry, St. Louis University School of Medicine; Southwest Clinical Society.

In addition, five medical specialty societies are accredited. These are the American Academy of Family Physicians, Kansas City; American Rhinologic Society, Kansas City; Institute for Pediatric Radiology, Kansas City; St. Louis Society of Anesthesiologists, St. Louis; Missouri State Medical Association.

Any hospital, medical society, specialty society or voluntary health agency may apply to MSMA for accreditation. If certain program criteria are met, those institutions may then offer Category I CME credit.

The local county medical society has expressed interest in gaining accreditation plus 14 more hospitals and eight additional specialty societies.

If members have questions concerning the voluntary CME program, they should contact MSMA Headquarters.

Mutual company pros & cons aired

Malpractice insurance problems and possible solutions continued to dominate discussion at the MSMA's December Council meeting in Jefferson City.

The Council's Ad Hoc Committee to Study Mutual Assessment Insurance Company reported on its November meeting with a law firm experienced in the mutual assessment area. The attorney informed the Committee that it would be necessary for at least 50% (about 2,000) of all active MSMA members to join a mutual in order to make it feasible. Also, a capitalization of \$4 million will be needed. Another concern at this time is the unstable re-insurance market.

The Committee emphasized that this is merely an interim report and that much more information is required before a decision can be reached. The Committee has mailed malpractice questionnaires to all MSMA members and will use the information in further studies. Dr. James C. Cope, Committee chairman, urged MSMA members to complete the questionnaires and return them to MSMA Headquarters as soon as possible.

The malpractice insurance situation again surfaced during the report of the Legislative Committee. Dr. John I. Matthews, chairman, said that the Missouri Senate Select Committee on Malpractice has pre-filed three bills and the Governor's Task Force on Malpractice has submitted five bills for consideration at the upcoming General Assembly. (See Article in this issue.) It was also noted that the MSMA Committee has met with the Legislative Committee of the Missouri Association of Osteopathic Physicians and Surgeons and the two groups plan to work closely on malpractice legislation and other bills of mutual interest.

In a busy day-and-a-half session, the Council also took action in several other areas:

- It was noted that the MSMA has sufficient operating capital and recommended that the note on the Headquarters building be retired. Also, the Association was instructed to investigate the possibility of future real estate purchases.

- A budget of \$469,142 was approved for 1976. This is a \$21,339 (or 4%) increase over the 1975 budget.

- The candidacies of Dr. Hubert A. Ritter, of St. Louis, for the AMA Board of Trustees and Dr. Joseph M. White, of Columbia, for the AMA Council on Medical Education were enthusiastically endorsed.

- A project of the MSMA Woman's Auxiliary to distribute posters on "Emergency Treatment for Food Choking" to restaurants and nursing homes was approved.

- The Council heard a report on the Meeting of Component Medical Society Representatives, held Oct. 17-18 at the Lake of the Ozarks, and recommended to continue the meeting on an annual basis under the direction of the Commission on Public Affairs.

- A proposed Bylaw change which would provide for the payment of certain Councilor expenses at the Annual Session was adopted and will be recommended to the House.

- Dr. Hubert A. Ritter, a member of the Missouri Task Force on "Certificate of Need" Legislation, reported that some modifications have been made in the proposals and said he expected this legis-

lation to be introduced into the General Assembly. The Council voted to study the bill carefully and take a position at the January meeting.

- Dr. R. Allen Chandler, MSMA President, reported that he will respond to an article in the St. Louis Globe-Democrat dealing with the problem of incompetent physicians.

(Continued from Page 1)

House Bill 1307 — Eliminates dollar amounts (or ad damnum) clause. There is a tendency for the large dollar amounts involved in malpractice cases to attract publicity. The inclusion of the request for specific damages is non-productive. Media coverage of this dollar amount is misleading since in most cases it bears little resemblance to the amount awarded. This sensational publicity appears to invite more frequent and costly suits which further aggravates the situation. It also places unfounded pre-trial notoriety on the defendant physician.

House Bill 1308 — Requires reporting of malpractice claims. There is a definite lack of updated, relevant data relating to malpractice claims. This recommendation would require insurers to annually report to the State Division of Insurance certain basic information concerning their operation in Missouri. This report would include all claims filed, awards and settlements, expenses of defending claims, etc.

House Bill 1309 — Makes available the authority to establish a Joint Underwriting Association (JUA). This would authorize the Director of the Division of Insurance to approve a plan for the apportionment of medical malpractice insurance business if he finds that insurance is not otherwise available. The specified companies must participate as a condition for their authority to write insurance in the state. This should be enabling legislation only and should be utilized only as a last resort.

House Bill 1312 — Allows disclosure of collateral source payments. The present system for compensating persons injured due to malpractice is inefficient and discriminatory. Certain victims are over-compensated while other victims receive inadequate compensation. Many persons are protected by some form of illness or injury insurance. Possible duplication of payments for a loss exists. The present legal practice that prohibits introduction of evidence relating to other sources of payment should be modified.

Several other bills dealing with malpractice have also been pre-filed. They include:

House Bill 1431 — Would establish a medical malpractice review panel.

House Bill 1433 — Another bill that would allow for the admission of patients collateral sources.

House Bill 1447 — This bill would limit plaintiff's attorney's contingent fees to a sliding scale based on the amount of the award similar to that adopted in the State of New Jersey.

House Bill 1274 — This is the bad Statute of Limitations change bill that we see every year. This would change the present Statute of Limitations from two years from the date of the act to two years from discovery for the filing of malpractice actions. The MSMA will again oppose this bill.

Practice Management Workshop

Please send additional information on the Practice Management Workshop, April 1, 1976, at the Crown Center Hotel, Kansas City, to:

Name _____

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City _____

Practice Management Workshop scheduled for MSMA members

A Practice Management Workshop designed principally for the established physician is being planned in conjunction with the 1976 Annual Session of the Missouri State Medical Association.

Limited to 50 physician participants, the program will be presented by the Practice Management Division of the A.M.A. Registration for the program will be \$50 and will include a compact binder which details the areas covered by the various speakers.

The Workshop will be held Thursday, April 1, 1976, at the Crown Center Hotel in Kansas City. The program begins at 8 a.m. and will conclude about 3:30 p.m. so that participants can attend the House of Delegates Reference Committees.

Some of the subjects to be covered at the Workshop include:

1. Patient Information Booklet
2. Personnel, Administration
3. Task Analysis and Delegation
4. The Telephone
5. Physician/Patient Encounter Form, Uniform Claim Form
6. Physical Aspects of Office
7. Appointment Scheduling
8. Paperwork, Filing, Dictation
9. Fee Collections

For further information on the Workshop, please clip the box above and mail it to MSMA, Box 1028, Jefferson City, Mo. 65101. If you wish to enroll at this time, please include a check for \$50.

Sheen Award nominations open

Nominations for the 1976 Dr. Rodman E. Sheen and Thomas G. Sheen Award will be accepted through Feb. 14, 1976.

Consisting of a \$10,000 cash prize and a commemorative plaque, the Sheen Award is bestowed annually to an American physician or physicians in recognition of their outstanding contributions to medicine.

Nominations may be submitted by state and local medical societies, medical specialties, medical research organizations, medical schools, hospital medical staffs and public health agencies at all levels of government. Additional information and nomination blanks are available from MSMA Headquarters.

Governmental issues draw most criticism from AMA House

Governmental issues, both legislative and regulatory, drew the brunt of criticism by members of the AMA House of Delegates at the recent Clinical Session in Hawaii.

The House went on record as strongly opposed to the National Health Planning and Resources Development Act passed by Congress in 1974. The delegates instructed the AMA to seek modification of the law and, if that fails, sue the government over the law.

The lawsuit, if filed, would question the constitutionality of the law, which would establish a new national regulatory system to replace several existing health planning and development control programs.

The delegates turned back an attempt to withdraw support from the AMA-sponsored national health insurance plan, but agreed to work for a private-sector catastrophic health insurance program with the insurance industry.

The AMA's NHI plan is based on the voluntary purchase of private-sector insurance.

Another government proposal which received criticism from delegates was the proposed use of economic indexing to limit fees to physicians treating Medicare patients.

The House adopted a pledge that "this Association take all appropriate action to seek a return of Medicare reimbursement to physicians' usual, customary, or reasonable charges."

The indexing provision limits physician fees in Medicare cases to no more than 17.9% above the level of prevailing charges in 1973. The 1973 fee levels are based on data from 1971.

Medical malpractice insurance shared the spotlight and several AMA activities were noted at the meeting: (1) AMA has received approval to incorporate a national reinsurance company if necessary; (2) AMA will start a major public and professional campaign aimed at improving the medical liability climate; (3) AMA will continue to assist states in seeking changes in the tort system; and (4) AMA will continue to explore alternatives to the court system for resolving differences.

In other areas of interest, the AMA voted to increase its legislative activities to include participation by state and county medical societies and reaffirmed its opposition to the entire PSRO law, and urge active attempts by the AMA and state societies to get it repealed or amended.

A Missouri resolution urging the AMA board to investigate the extent to which osteopaths are denied specialty board certification after completion of AMA-approved residencies was adopted. The measure reaffirmed the AMA policy that osteopaths should be permitted to enroll in approved residencies, and on completion should be eligible for both licensure and board certification.

For a full report on all actions taken at the Session, read the Dec. 8, 1975, AM News.

adjunctive therapy for wound debridement

HELPS TO REMOVE:

- Necrotic Tissue
and Associated Odor

HELPS PREPARE WOUND FOR:

- Granulation/Healing
- Granulation/Grafting



CLEANSE WOUND

Thoroughly cleanse and irrigate wound area with sodium chloride or water solutions. Wound **MUST** be cleansed of antiseptics or heavy-metal antibacterials.



THOROUGHLY MOISTEN

Thoroughly moisten wound area either through tubing, showering, or wet soaks (e.g., sodium chloride or water solutions).



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Apply a layer of TRAVASE Ointment. Assure intimate contact with necrotic tissue and complete wound coverage.



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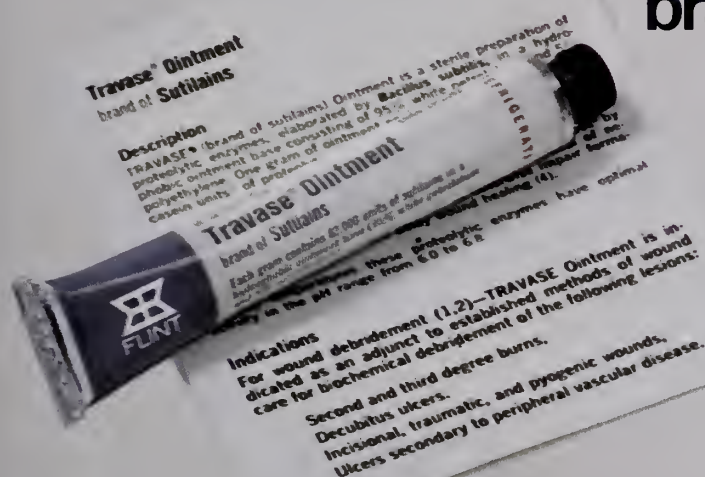
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ulcers

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- Incisional, traumatic, and pyogenic wounds,
- Ulcers secondary to peripheral vascular disease.

Contraindications: Application of TRAVASE Ointment is contraindicated in the following conditions:

- Wounds communicating with major body cavities,
- Wounds containing exposed major nerves or nervous tissue,
- Fungating neoplastic ulcers,
- Wounds in women of child-bearing potential—because of lack of laboratory evidence of effects of TRAVASE upon the developing fetus.

Warning: Do not permit TRAVASE Ointment to come into contact with the eyes. If contact is made, immediately rinse with copious amounts of water, preferably sterile.

Precautions: A moist environment is essential to optimal activity of the enzyme. Enzyme activity may also be impaired by certain agents (see package insert). Although there have been no reports of systemic allergic reaction in humans, studies have shown that there may be an antibody response in humans to absorbed enzyme material.

Adverse Reactions: Consist of mild, transient pain, paresthesias, bleeding and transient dermatitis. Pain usually can be controlled by administration of mild analgesics. Side effects severe enough to warrant discontinuation of therapy occasionally have occurred.

If bleeding or dermatitis occurs as a result of the application of TRAVASE Ointment, therapy should be discontinued. No systemic toxicity has been observed as a result of the topical application of TRAVASE Ointment.

DOSAGE AND ADMINISTRATION: STRICT ADHERENCE TO THE FOLLOWING IS REQUIRED FOR EFFECTIVE RESULTS OF TREATMENT:

1. Thoroughly cleanse and irrigate wound area with sodium chloride or water solutions. Wound **MUST** be cleansed of antiseptics or heavy-metal antibacterials which may denature enzyme or alter substrate characteristics (e.g., hexachlorophene, silver nitrate, benzalkonium chloride, nitrofurazone, etc.).
2. Thoroughly moisten wound area either through tubbing, showering, or wet soaks (e.g. sodium chloride or water solutions).
3. Apply TRAVASE Ointment in a thin layer assuring intimate contact with necrotic tissue and complete wound coverage extending $\frac{1}{4}$ to $\frac{1}{2}$ inch beyond the area to be debrided.
4. Apply loose wet dressings.
5. Repeat entire procedure 3 to 4 times per day for best results.



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*Based on usage by dosage form; data gathered by independent research organization.

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WARNING: may be habit forming.

CONTRAINDICATIONS: Infants under 6 months. Acute intermittent porphyria, known hypersensitivity to barbiturates, antihistamines, known previous barbiturate addiction, severe hepatic impairment, CNS injury, senility, and presence of uncontrolled pain.

WARNINGS: Barbiturates may be habit forming. Pre-existing neurologic disturbances may be aggravated. Idiosyncratic reactions may occur. Acquired sensitivity may result in allergic reactions. Safety in pregnancy has not been established.

PRECAUTIONS: Use cautiously with other sedative, hypnotic or narcotic agents. Use with caution in patients with acute or chronic hepatic disease, fever, hyperthyroidism, diabetes mellitus, severe anemia, congestive heart failure, or a history of drug dependence or suicidal tendencies. May impair alertness and coordination with increased accident risk.

ADVERSE REACTIONS: Drowsiness, fatigue, vertigo, incoordination, tremor, muscle weakness, ataxia, hypotension, respiratory depression, delirium and coma. Dryness of nose, mouth, and throat, pupillary dilatation or blurred vision, urinary retention, abdominal pain, nausea, vomiting, diarrhea, and hypersensitivity reactions. Overdose may result in hallucinations, excitement, ataxia, incoordination, athetosis, convulsions, and death.

DOSAGE AND ADMINISTRATION: Rectally, children 2-12 years of age, one WANS® CHILDREN every 6-8 hours as required. Children under 2 years of age may receive ½ the above dosage. *Adults:* Rectally, one WANS® No. 1 Suppette™ to inhibit mild nausea and/or vomiting; one WANS® No. 2 Suppette to control pernicious vomiting. Repeat doses for adults should be 4 to 6 hours apart, not to exceed four doses in 24 hours. Moisten finger and Suppette with water before inserting. Optimum dosage must be determined in each case by the clinical response.



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Preliminary Program
118th Annual Session

MISSOURI STATE MEDICAL ASSOCIATION

Crown Center Hotel, Kansas City

April 1-4, 1976

Thursday, April 1

- 11:00 AM Registration of Delegates.
- 1:30 PM House of Delegates Meeting, opening session.
- 3:00 PM Reference Committee Meetings.
- 6:30 PM Missouri State Surgical Society Executive Council Meeting and Dinner.

Friday, April 2

- 8:00 AM Registration.
- 8:00 AM Missouri University Alumni Board of Governors Breakfast Meeting.
- 9:00 AM General Session. *Current Issues Confronting the Physician Across the Nation.*
Introduction: R. Allen Chandler, M.D., Kansas City, MSMA President.
Speakers: The Honorable Paul Rogers, Washington, D. C., Member U. S. House of Representatives.
Max H. Parrott, M.D., Portland, Ore., President, American Medical Association.
- 10:30 AM Intermission to View Exhibits.
- 10:30 AM Presiding: Stanley J. Goldman, M.D., Kansas City, President, Missouri State Allergy Association.
Participants:
Histamine Modulation of Lymphocyte Function—Relation to Clinical Disease, Henry E. Jones, M.D., Ann Arbor, Mich., Assistant Professor of Dermatology, University of Michigan Medical Center.
Pentapeptide Inhibition of Skin Test Reaction in Clinical Allergy, Robert Dockhorn, M.D., Kansas City.
Skin Manifestations of Food Hypersensitivity, James W. Willoughby, M.D., Kansas City.
Aeroallergens, William R. Solomon, M.D., Ann Arbor, Mich., Section of Allergy, Department of Internal Medicine, University of Michigan Medical Center.
Sponsored by the Missouri State Allergy Association.
- * 11:00 AM Program to be Sponsored by the American Cancer Society, Missouri Division, Inc.
- * 11:00 AM Program to be Sponsored by the Missouri Society of Internal Medicine and the American College of Physicians (Missouri Region).
- * 11:00 AM Program to be Sponsored by the Missouri Chapter, American Academy of Pediatrics.
- * 11:00 AM Program to be Sponsored by the Missouri State Surgical Society.
- * 11:00 AM *Charles A. Brasher, M.D. Lectureship.* Sponsored by the American Lung Association of Missouri and the Missouri Thoracic Society.
- 12:30 PM Missouri University Alumni Luncheon.
- 12:30 PM Missouri State Allergy Association Luncheon, Annual Business Meeting and Election of Officers (members only).
- 12:30 PM Missouri Thoracic Society Luncheon and Business Meeting.
- * 2:00 PM Presiding: Robert E. Bolinske, M.D., St. Louis, President-Elect, Missouri State Allergy Association.
Immunity in the Atopic Patient—Protection Against Infection, Fungi and Bacteria, Henry E. Jones, M.D., Ann Arbor, Mich.
Sympathomimetics, 1976, Phillip E. Korenblat, M.D., St. Louis.
Allergic Modification of Nasal Physiology, William R. Solomon, M.D., Ann Arbor, Mich.
Acute Anaphylactic Shock Simulating an Acute Myocardial Infarction, Harry C. Wall, M.D., Kansas City.
Malignant Melanoma Immunologically Treated with Dinitrochlorobenzene, Leonard D. Grayson, M.D., Quincy, Ill.
Sponsored by the Missouri State Allergy Association.
- * 2:00 PM Program to be Sponsored by the Missouri Society of Internal Medicine and the American College of Physicians (Missouri Region).
- * 2:00 PM *The Natural History of Breast Carcinoma; Relevance to Recent Trends in Diagnosis and Treatment*, Walter C. Bauer, M.D., St. Louis, Professor of Surgical Pathology and Pathology, Washington University.
Sponsored by the Missouri Society of Pathologists.
- * 2:00 PM Program to be Sponsored by the Missouri Psychiatric Association.
- * 2:00 PM Program to be Sponsored by the Missouri State Surgical Society.
- 3:30 PM Intermission to view exhibits.
- 4:00 PM House of Delegates, second session.

* Concurrent Sessions.

- 4:15 PM Missouri State Allergy Association Business Meeting.
- 5:30 PM Missouri State Allergy Association Cocktail Party for members and guests.
- 6:00 PM Reference Committee Meetings.
- 6:30 PM Missouri Society of Pathologists Dinner.
- 6:30 PM Missouri Psychiatric Association Cocktails and Dinner.
- 6:30 PM Missouri State Surgical Society Cocktails and Dinner.

Saturday, April 3

- 8:00 AM **Registration.**
- ° 9:00 AM *Fundamentals of Acid-Base Theory and Practice.*
Moderator: Donald E. McIntosh, M.D., Kansas City.
Speaker: Walter C. Bernards, M.D., Portland, Ore., Staff Anesthesiologist, St. Vincent's Hospital.
Sponsored by the Missouri Society of Anesthesiologists.
- ° 9:00 AM Program on Hypertension to be Sponsored by the Missouri Heart Association, Inc.
- ° 9:00 AM *New Concepts in Pregnancy Care.*
Moderator: To be announced.
Participants:
John T. Queenan, M.D., Louisville, Ky.
Jack M. Schneider, M.D., Lubbock, Tex.
Sponsored by the American College of Obstetricians and Gynecologists.
- ° 9:00 AM Program to be Sponsored by the Missouri Ophthalmological Society.
- ° 9:00 AM Program to be Sponsored by the Missouri State Surgical Society.
- 9:00- **Discuss the Issues with Your AMA Delegates.**
- 11:00 AM
(Missouri's AMA Delegates and Alternates will be available for an open forum type discussion.)
- 10:30 AM **Intermission to View Exhibits.**
- ° 11:00 AM *Potpourri of Anesthesia Pearls.*
Moderator: George P. Hoech, Jr., M.D., Kansas City.
Speaker: Archibald O. Tetzlaff, M.D., Kansas City, Kans., Staff Anesthesiologist, Providence-St. Margaret's Health Center.
Sponsored by the Missouri Society of Anesthesiologists.
- ° 11:00 AM *Modern Treatment of Fungal Infections.*
Moderator: Larry E. Millikan, M.D., Columbia.
Speaker: Henry E. Jones, M.D., Ann Arbor, Mich., Assistant Professor of Dermatology, University of Michigan Medical Center.
Sponsored by the Missouri Dermatological Society.
- ° 11:00 AM *Current Status of High Risk Maternal and Infant Care in Missouri.*
Moderator: Harry Jonas, M.D., Independence.
Panel Participants: To be announced.
Sponsored by the American College of Obstetricians and Gynecologists.
- ° 11:00 AM Program to be Sponsored by Physical Medicine and Rehabilitation.
- ° 11:00 AM Program to be Sponsored by Missouri State Surgical Society.
- 12:15 PM Missouri Ophthalmological Society, Inc. Luncheon.
- 12:30 PM Missouri OB-GYN Society and the American College of Obstetricians and Gynecologists Luncheon. (This will include the State Maternal Mortality Committee Report and a business meeting of the Missouri OB-GYN Society.)
- 12:30 PM Fifty-Year Club Luncheon.
- 12:30 PM Physical Medicine and Rehabilitation Luncheon.
- 12:30 PM Missouri Society of Neurosurgeons Luncheon.
- 1:30 PM *Newer Imaging Systems.*
Moderator: To be announced.
Participants:
Initial Experience with Total Body CAT Scanning in a Private Practice, Rodger Lambie, M.D., Kansas City, Menorah Medical Center.
Gray Scale Ultrasound of the Abdomen & Pelvis, William Walls, M.D., Lawrence, Kans., University of Kansas Medical Center.
Xeroradiography, Kenneth Hollweg, M.D., Kansas City.
Sponsored by the Missouri State Radiological Society.
- 1:30 PM Program to be Sponsored by the Missouri Ophthalmological Society, Inc.
- ° 2:00 PM *Clinical Problems in Photosensitivity.*
Moderator: Gordon Sauer, M.D., Kansas City.
Speaker: John Epstein, M.D., San Francisco, Calif., Clinical Professor of Dermatology, University of California. Editor, *AMA Archives of Dermatology*.
Panel Participants:
Eugene A. Bauer, M.D., St. Louis.
Ernest Lorenc, M.D., Springfield.
Dallas Johnson, M.D., Kansas City.
Gordon Sauer, M.D., Kansas City.
John Epstein, M.D., San Francisco, Calif.
Sponsored by the Missouri Dermatological Society.

° Concurrent Sessions.

- ° 2:00 PM Program to be Sponsored by the Missouri Ear, Nose and Throat Association.
- ° 2:00 PM Program to be Sponsored by the Missouri Society of Internal Medicine and the American College of Physicians (Missouri Region).
- ° 2:00 PM *Ask the Expert.*
Moderator: To be announced.
Panel Participants:
John T. Queenan, M.D., Louisville, Ky.
Jack M. Schneider, M.D., Lubbock, Tex.
Sponsored by the American College of Obstetricians and Gynecologists.
- 3:30 PM Intermission to View Exhibits.
- 5:00 PM Missouri University Medical Alumni Cocktail Party.
- 5:00 PM St. Louis University Medical Alumni Cocktail Party.
- 5:00 PM Washington University Medical Alumni Cocktail Party.
- 6:30 PM Social Hour for those attending Banquet.
- 7:15 PM Annual Banquet in Honor of Past-Presidents.

Sunday, April 4

7:30 AM House of Delegates, Breakfast and Final Session

° Concurrent Sessions.

Continuing Education Coming Events

- | | |
|------------|---|
| Jan. 20-22 | Workshop: Radioimmunoassay
Dept. of Medical Technology, St. Louis U. School of Medicine and Regional Medical Education Center of St. Louis VA Hospital.
United States Room, Busch Memorial Center, St. Louis |
| Jan. 22 | Second Annual Perinatal Symposium
Dept. of Gynecology and Obstetrics, St. Louis U. School of Medicine and Dept. of Pediatrics and Cardinal Glennon Memorial Hospital for Children
Sesquicentennial Room, Busch Memorial Stadium, St. Louis |
| Feb. 2-3 | Symposium: Recent Advances in the Treatment of Neurological Diseases
Division of Continuing Medical Education
K.U. Medical Center, Kansas City, Kan. |
| Feb. 5-6 | Topics in Pulmonary Medicine
Continuing Medical Education
Washington University School of Medicine, St. Louis |
| Feb. 9 | City-Wide Radiology Conference: Reliability of the Barium Enema Exam in Cancer of the Colon
Mallinckrodt Institute of Radiology
Washington U. School of Medicine, St. Louis |
| Feb. 20-21 | The Long Weekend—Cancer Management and Anemia
MU-KC School of Medicine
Crown Center Hotel, Kansas City |
| March 1-2 | Symposium: Emergency Medicine—The First 90 Minutes
Division of Continuing Medical Education
K.U. Medical Center, Kansas City, Kan. |
| March 4-5 | Course in Clinical Endocrinology
Washington U. School of Medicine
St. Louis |

in Brief

A summary of AMA, medical & health news

American Medical Association / 535 North Dearborn Street / Chicago, Illinois 60610 / Phone (312) 527-1500 / TWX 910-221-0300

Eight negotiations training sessions planned for next year by the AMA Department of Negotiations will emphasize techniques, strategies, goals and tactics in negotiating with such outside forces as state and federal agencies, insurance carriers, hospital boards and consumer groups. Four of the seminars will be intensive five-day programs for state, county and specialty society executives and will be limited to 30 participants. Two of these have been scheduled—one at the University of New Mexico, Albuquerque on February 16-20 and one at the Dow Conference Center, Hillsdale College, Hillsdale, Mich., on April 26-30. Four shorter seminars for physicians will be announced soon. These two-day regional workshops will be limited to 125 physicians each.

Cash incentive programs for state and county medical societies will be discontinued by the AMA in 1976. They were begun in 1973 on a trial basis for 1974 and 1975. The state program, which will cost \$100,000 for 1975, encouraged early receipt of AMA dues from state medical associations by paying, in addition to the standard 1% commission on dues collected, a higher interest than they could receive by locally investing AMA dues money. The county program, which paid out \$241,000 in 1974, encouraged local AMA membership campaigns by reimbursing participating county societies 50% of the AMA dues for new members who had rejoined the Association after a 24-month lapse in membership. The decision to discontinue the programs was made by the AMA Board of Trustees at its October meeting.

The 1976 AMA National Leadership Conference will be held on January 22-25 at the Marriott Motor Hotel in Chicago. Seven key issues will be covered during the program. It is designed to provide information and an exchange of ideas for medical society leadership on the problems they will face during 1976. Write to the Office of the Executive Vice-President, AMA Headquarters, for information.

Self-employed physicians will pay \$94.89 more to the Social Security program next year. The maximum tax level for the self-employed will be \$1,208.70, the government said. For salaried individ-

uals, the maximum tax will rise to \$895.05 from \$824.85 this year. Tax rates of 5.85% for each employer and employee and 7.9% for the self-employed won't change, but the taxable base will be increased to \$15,300 from the 1975 base of \$14,100.

The American Retired Physicians Association is a new organization being formed to serve retired and semi-retired physicians. The association, which has received an AMA grant to aid its development, will be open to physicians aged 55 or over and their spouses, or widows. Annual dues of \$10 will cover both the physician and spouse. Beginning next year, a newsletter will include news of group tours and low-rate purchase of major consumer items, as well as information on practice disposal, wills and retirement income. For information write American Retired Physicians Association, Suite 906, 400 N. Michigan Ave., Chicago, Ill. 60611.

The U. S. infant mortality rate was 16.2 per 1,000 live births during the first eight months of 1975, a 3% decrease from the 16.7 rate during the same period in 1974. In August, the infant mortality rate was 14.6, a record low for the month. In August, 1974, the rate was 15.6 per 1,000 live births.

The AMA's 72nd Annual Congress on Medical Education will be on January 30-February 1 at the Palmer House Hotel, Chicago. The theme of the meeting will be "Education for Health Care: Beginning the Third Century." Collaborating with the AMA Council on Medical Education in presenting the meeting are the Association for Hospital Medical Education, American Medical Student Association, American Society of Allied Health Professions, Federation of State Medical Boards, and the AMA Intern and Resident Business Session. For information, write to Council on Medical Education, AMA Headquarters.

The Third Conference on Cutaneous Toxicity, sponsored by the AMA and the Society of Toxicology, Inc., will be on May 17-18, 1976 in Washington, D.C. Dermatology experts will discuss evaluation of the skin's susceptibility to harmful substances, establishment of the safety of skin products, disease control in hospitals and other topics. Information is available from Dept. of Drugs, AMA Headquarters.

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From the Medical Schools



ST. LOUIS UNIVERSITY

Robert H. Felix, M.D., dean emeritus of the School of Medicine, was inducted into the Society of Scholars of the Johns Hopkins University during their May commencement exercises.



Dr. Felix

The Society of Scholars honors former Johns Hopkins postdoctoral fellows who have gained marked distinction in their fields.

Dr. Felix became the first director of the National Institute of Mental Health in 1946, where he developed techniques for the application

of peer judgment to the awarding of teaching, research and service funds in the mental health area, thus setting patterns for government support of scientific ventures. Aware quite early in his medical career that psychiatric illness was a public health problem, he led in the design of the mental health center. He has called community psychiatry the "Third Psychiatric Revolution."

Joan L. Caddell, M.D., assistant clinical professor of pediatrics, was awarded \$4,400 from the Life Seekers of St. Louis for a research project entitled "An Animal Model for the Sudden Infant Death Syndrome: Selected Studies." Approximately half of the grant will be used to purchase a dual viewing microscope which permits two people to study tissue simultaneously and to photograph important findings.

George E. Thoma, M.D., vice-president for the St. Louis University Medical Center, hosted alumni receptions at the Annual Meeting of the Association of American Medical Colleges in Washington, D. C., and the American Medical Association convention in Honolulu, Hawaii during the month of November.

George C. Kaiser, M.D., professor of surgery, *Hendrick B. Barner*, M.D., professor of surgery, and *Joseph D. Marco*, M.D., fellow in cardiovascular surgery, attended a meeting of the American Heart Association in Los Angeles, Calif. Dr. Kaiser chaired one of the sessions on coronary surgery. Drs. Kaiser, Barner and Marco also presented a paper entitled "Left Ventricular Aneurysmectomy"

at the Western Surgical Association meeting held in Colorado Springs, Colorado.

UNIVERSITY OF MISSOURI-COLUMBIA

Certificates commending *Dr. Frank B. Engley*, professor and chairman of microbiology, have been presented to him by the National Aeronautics and Space Administration and by the Veterans' Administration.

NASA's certificate was in recognition of contributions to the planetary quarantine program. The VA commendation was for three years of "exceptional contributions" toward the supply processing and distribution personnel training and for "significant" contributions toward the sterile supply program which "enhances patient safety and protection in VA hospitals throughout the country."

Dr. Giulio J. Barbero, professor and chairman of the Department of Child Health, has been appointed to the National Heart and Lung Advisory Council of the National Heart and Lung Institute, Department of Health, Education and Welfare.

The appointment was announced recently by *Dr. Donald S. Fredrickson*, director of the National Institutes of Health.

As a Council member, Dr. Barbero will participate in the evaluation of NHLI research programs directed against cardiovascular, blood and lung diseases and will make recommendations to the Director of NHLI and to the Director of NIH concerning directions, goals and priorities of these programs. His term of service runs through September, 1976.

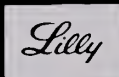
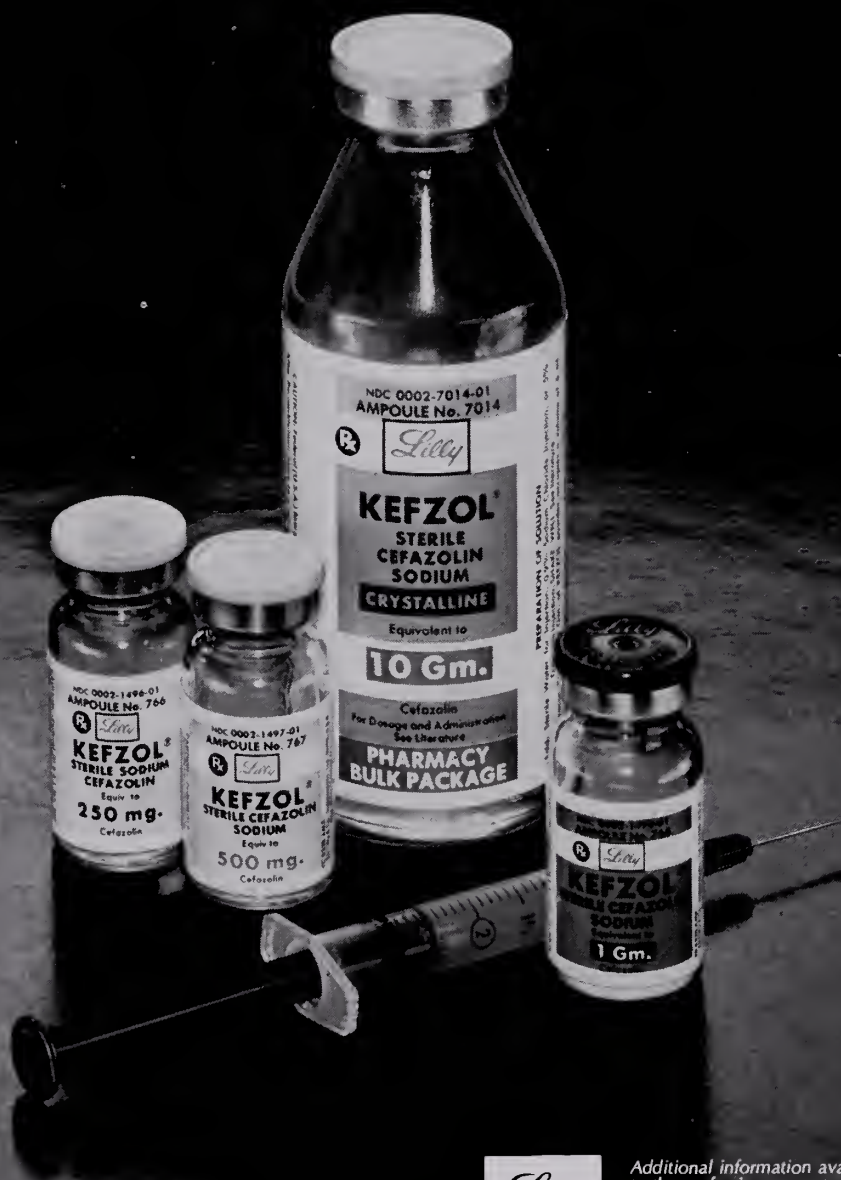
Dr. Bartley Frueh, clinical associate professor of ophthalmology, discussed new methods of repair of drooping eyelids and surgical procedures for reconstruction of eyelids for protection of exposed eyes at the meeting of the Kansas City Society of Ophthalmology and Otolaryngology in December.

Dr. James M. A. Weiss, professor of psychiatry and community health, has been elected to fellowship in the Royal Society of Medicine in Great Britain, an honor limited to those outside of the United Kingdom with "distinguished qualifications and scientific attainments." Dr. Weiss has been on leave from the chairmanship of his department in order to devote major time to completion of research projects involving his continuing studies of suicide and homicide.

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Missouri Medicine

JOURNAL OF THE MISSOURI STATE MEDICAL ASSOCIATION

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BRENT M. PARKER, M.D., MICHAEL HUNTINGTON, M.D.,
L. MONTY WILLSON, M.D. and JOHN R. STONE, M.D., *Columbia*

Prolapsing Mitral Valve Syndrome: A Frequent and Important Condition

Case Report

Dr. Parker: The primary purpose of today's discussion will be to discuss the recently recognized prolapsing mitral valve or click-murmur syndrome. Not described until the early 1960s, this condition is being seen with considerable frequency. Unfortunately, its clinical significance is not yet widely appreciated and its presence is often missed. To begin our discussion, we will report on a patient with the syndrome who was resuscitated by the emergency team supported by the University of Missouri and the Missouri Heart Association at the football game between the universities of Oklahoma and Missouri. The case presentation will be followed by brief comments on cardiac resuscitation and, then, a more detailed discussion of the prolapsing mitral valve syndrome.

CASE REPORT

Dr. Huntington: The patient was a 42-year-old white man with a history of excessive alcohol consumption in episodic sprees. He flew to Columbia on the morning of the football game after a night of partying. Prior to and during the game, he consumed 11 oz. of ethanol. During an exciting moment he rose to cheer his team and fell to the ground unconscious. It was described as "like you had turned off a light switch." He was carried out the nearest exit by his friends and down the length of the stadium by police and emergency medical team members.

Upon arrival at the First Aid Station, the patient was

without respiration and femoral or carotid pulse. While emergency medical team members began clearing the airway, Dr. L. Monty Willson administered a sharp blow to the precordium. There was no pulse return. Therefore, immediate defibrillation was performed. The elapsed time from collapse to defibrillation was approximately three minutes. Full cardiopulmonary resuscitation was continued and a strong pulse was obtained in approximately 30 seconds. Ventilatory support was maintained while intravenous fluids were started and an electrocardiographic recorder was attached. Approximately five minutes thereafter, voluntary respira-

This paper on prolapsing mitral valve syndrome is derived from a Grand Rounds presentation of the Department of Medicine, University of Missouri School of Medicine on Jan. 10, 1974. Although this syndrome is being seen with considerable frequency, its clinical significance is not yet widely appreciated and its presence often is missed. After the case report, the authors discuss cardiac resuscitation briefly and, then, provide a more detailed discussion of the syndrome.

Dr. Parker is Professor of Medicine. Dr. Huntington is an Intern in Medicine. Dr. Willson is a Fellow in Cardiology. Dr. Stone is Chief Medical Resident.

tions returned and the blood pressure stabilized at 100/60 mm Hg. The electrocardiogram revealed sinus rhythm, but the patient remained comatose. He was then transferred to the Coronary Care Unit. When he was examined in the hospital, he had regained consciousness and was able to state that he had been in good general health and had seen his physician one month before his illness. There was no history of chest pain, palpitation or dyspnea and no family history of sudden death or heart disease.

Blood pressure was 120/70 mm Hg, pulse was 104 and regular and respirations were 28 per minute. Results of examination were negative except for what was interpreted as an S_4 gallop. No murmur or rales were heard. Neurologic status was normal.

The hospital course was uneventful. Repeated electrocardiograms, serial serum creatinine phosphokinase, lactic dehydrogenase and serum glutamic oxalacetic transaminase determinations were normal. Repeat cardiac auscultation indicated that what was originally thought to be an S_4 gallop was actually a loud mid-systolic click without a murmur. This was confirmed on phonocardiography (Fig. 1). A treadmill exercise test through stage III revealed no arrhythmia, ischemic changes or symptoms. The patient was started on a regimen of propranolol, 10 mg four times daily, and discharged to the care of his personal physician with a diagnosis of the prolapsing mitral valve or "click-murmur syndrome."

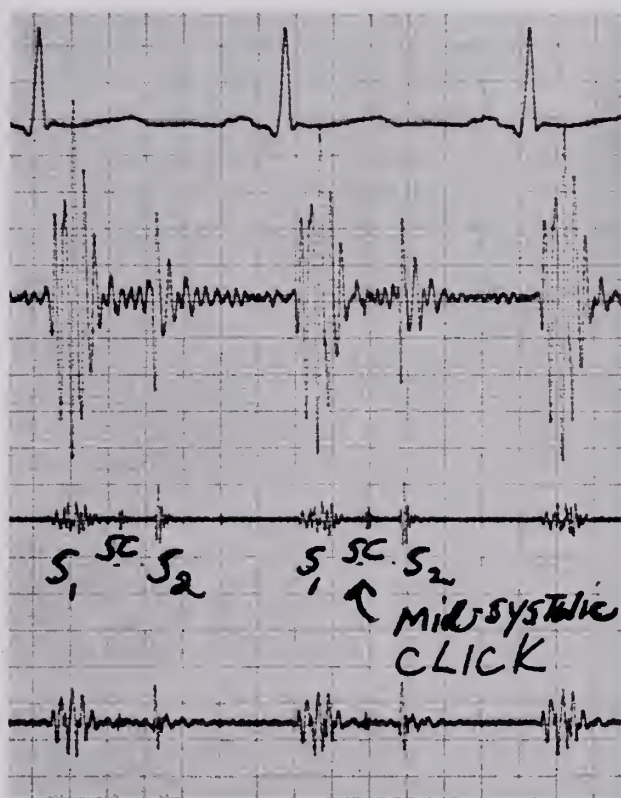


Fig. 1 Phonocardiogram revealing mid-systolic click (SC). The top strip is the lead II electrocardiogram. The bottom three strips are the apical phonocardiogram recorded at different frequencies.

Dr. Parker: There are four points which I wish to make about cardiac resuscitation.

1. It was perfectly proper and clearly indicated to use the defibrillator in this patient even though an electrocardiogram had not been obtained. Time is critical. Defibrillation should be performed at once in the patient with cardiac arrest without waiting for an electrocardiogram since a majority of "arrested" patients are in ventricular fibrillation.¹ Those patients with asystole usually have a poorer prognosis, and an electric shock will not be harmful.

2. There are frequently requests that the operator stop cardiac massage to allow a cutdown or endotracheal tube insertion or to look at the electrocardiogram. When massage is stopped, the patient is without circulation. Cessation of massage and ventilation must be avoided.

3. I believe that the insertion of an endotracheal tube is overemphasized. Most patients can be ventilated quite well by mouth or with a bag. A long period without ventilation and circulation while an endotracheal tube is clumsily inserted will spell disaster.

4. Many resuscitations are disorganized and rely on excessive medication. One physician needs to direct the procedure and the medication.

In our case today, three possible causes for the cardiac arrest need to be considered. Sudden death has been reported in patients with the prolapsing mitral valve. We will discuss this in detail later. A second possible cause is alcoholism. Kramer *et al*² reported an increased incidence of sudden death in alcoholic persons with fatty liver. The cardiac arrest in our patient occurred in a setting of excessive chronic and acute alcohol intake. The third possibility is atherosclerotic heart disease. Approximately 70% to 80% of sudden death is due to coronary atherosclerosis, and there often is no previous warning. On the basis of probability, coronary disease is the most likely cause in our case. However, there were no clinical manifestations of coronary disease and the real cause of the arrest must remain speculative.

We have been observing increased numbers of patients with the prolapsing mitral valve syndrome. In fact, six patients with this problem were seen recently in one afternoon. Because this is a relatively frequent problem with important clinical implications, we wish to spend the rest of the time discussing this fascinating condition.

I first became interested in the syndrome some years ago when I saw a young woman in coma. She had collapsed suddenly. No cause for the unconsciousness was found and she recovered quickly.

TABLE 1

CLINICAL FEATURES IN 24 PATIENTS WITH THE
CLICK-MURMUR SYNDROME

Female sex	14
Palpitation or arrhythmia	12
Chest pain	9
Dyspnea	7
Fatigue	6
Syncope or dizziness	6
No symptoms	5
Midsystolic click, late systolic murmur	19
Click without murmur	3
Late systolic murmur only	2
Normal heart size on roentgenogram	24

While she was being monitored, short runs of ventricular tachycardia were observed. A late systolic murmur and midsystolic click were evident. In the absence of other causes, we attributed her collapse to cardiac arrhythmia. On a regimen of procaine amide and propranolol, she has had no further syncope, although ventricular premature contractions remain frequent.

My colleagues and I then studied patients with the prolapsing mitral syndrome for arrhythmia.³ The data I will give are slightly expanded from our abstract. Twenty-four patients were collected in one year and were studied either with Holter monitoring or treadmill exercise. Most patients were women and a majority had symptoms attributable to cardiac arrhythmia (Table 1). Slight QT prolongation was present in almost half (Table 2). Arrhythmia was frequent (Table 3), especially in those in the standing position, perhaps because the smaller heart attendant to standing allows more prolapse. Exercise or the immediate post-exercise period also was associated with an increased incidence of rhythm abnormalities. There were frequent significant ventricular arrhythmias which might pose a hazard (Table 3). I feel that any unexplained ventricular arrhythmia in a young person warrants a careful search for the prolapse syndrome and that patients with a click or late systolic murmur should be monitored for rhythm disturbance during exercise. Others also have noted the frequent occurrence of arrhythmias.⁴⁻⁷

The etiology of the arrhythmias is obscure. Temporal dispersion and reentry related to the prolonged QT interval have been suggested. Myocardial ischemia also has been postulated, but this seems unlikely since the coronary arteries are normal. Some have observed dyskinetic myocardial segments; localized or generalized myocardial disease might be related to the arrhythmia.⁶ My own postulation is that the long chordae and redundant

TABLE 2

ELECTROCARDIOGRAPHIC FINDINGS IN 24
PATIENTS WITH THE CLICK-MURMUR SYNDROME

Normal	11
QT prolonged	10
Flat or inverted T wave II, III, AVF	6
Generalized T flattening	5
Left axis deviation	2
Right axis deviation	1

TABLE 3

ARRHYTHMIAS IN 24 PATIENTS WITH THE
CLICK-MURMUR SYNDROME STUDIED BY HOLTER
MONITORING OR EXERCISE STRESS TESTING

Ventricular premature contractions	21
Frequent	19
Multifocal	14
Ventricular tachycardia	10
Atrial fibrillation	3
Atrial premature contractions	3
No arrhythmia	3

mitral leaflets, which are present in many patients, may mechanically stimulate premature beats in the left ventricle or atrium much as does a catheter during cardiac catheterization. This theory would fit with the observation that arrhythmias are more common during exercise when the heart is smaller and valve motion and myocardial contractility are more vigorous. These factors would favor mechanical induction of premature beats.

Dr. Willson will now discuss the prolapsing mitral valve syndrome in more detail.

Dr. Willson: Until recently, non-ejection clicks were believed to be meaningless. Indeed, they were thought to be of extracardiac origin. Late systolic murmurs were also considered innocent. Barlow *et al*⁸ initially called attention to the association of midsystolic clicks and late systolic murmurs. Since that time, the syndrome has received increasing attention. It was noted that people with this syndrome have an increased incidence of sudden death^{4, 5, 9} and clinical interest has mounted.

Angiographic studies have demonstrated that these patients have prolapse of one or both mitral valve leaflets causing the late mitral insufficiency^{8, 10} and systolic murmur. Furthermore, intracardiac phonocardiography has localized the clicks to the left atrium, and it has been demonstrated that the clicks occur at the time of maximum mitral prolapse.^{11, 12} Thus, it is firmly established that the prolapsing mitral valve syndrome is due to abnormalities of the mitral valve mechanism.

A. Etiology

The cause of the syndrome is unknown. Pocock and Barlow,¹³ who have published a report on the largest series of patients, break down their group as follows: unknown cause, 62% and associated with other diseases, 38%. The other diseases include congenital heart disease (especially atrial septal defect), Marfan's syndrome, rheumatic heart disease, idiopathic hypertrophic subaortic stenosis, coronary artery disease and post-mitral commissurotomy. Among the idiopathic group, a significant number have a familial incidence of the syndrome. These constitute 18% of the total. In these familial cases, there is an autosomal mode of inheritance.^{14, 15} My discussion will pertain to those patients with the idiopathic or hereditary form.

B. Pathology

The basic pathological changes noted in the idiopathic cases are enlarged and redundant mitral leaflets, myxomatous degeneration of these leaflets and elongated and improperly attached chordae.^{9, 16} Although these changes are most commonly found in the mitral valve, similar abnormalities are occasionally found in the tricuspid valve and are associated with tricuspid insufficiency and tricuspid clicks.¹⁷

C. Clinical Manifestations

The syndrome is found in all age groups, but usually it is found in young and middle-aged adults. There is a striking female predominance of between 2-3:1.^{4, 5, 18} Although the condition is basically defined by its auscultatory findings, most (80%) patients are symptomatic.

Palpitation is the most frequent presenting symptom (70%). The incidence of arrhythmias in those complaining of palpitations is much higher than in those without this complaint. Dyspnea is the next most common symptom (50%), but frequently cannot be elicited with exercise testing. Chest pain (30%) is not usually characteristic of that seen in coronary artery insufficiency and is most frequently considered to be chest wall pain. Nonspecific fatigue (20%) also is a complaint. As with dyspnea and chest pain, fatigue cannot be demonstrated to be due to weakness or decreased exercise capacity via stress testing. Syncope, although not common, is an important symptom in light of the association of sudden death with this syndrome. As most of you have surmised, there is little of a concrete nature in this symptom complex. Indeed, faced with a healthy appearing middle-aged woman with these complaints, most of us would not think of cardiac

disease. Several authors, in discussing this syndrome, have commented on the highly neurotic sounding history that is frequently obtained.^{4, 5} Nevertheless, the frequency and severity of the symptoms in stable individuals suggests an organic cause for the symptoms.

On physical examination, abnormalities are usually restricted to the midsystolic click and late systolic murmur although evidence of "associated" disease such as Marfan's syndrome should be sought. The midsystolic click or late systolic murmur are often misinterpreted, as in our case. A characteristic of the physical findings is their marked variability from observer to observer, from time to time with the same observer and their change with body position. Fontana *et al*¹⁹ emphasized this variability and the need to listen carefully with the patient in four positions—supine, left decubitus, sitting and standing. Both the click and the murmur are best heard at the apex. However, in the supine or left decubitus position, frequently only the click is heard. Any maneuver which causes decreased venous return, such as sitting or standing, will bring out the murmur and cause the click to be less evident. Thus, frequently the click will be heard only in the supine position and the murmur only in the upright position. In the series of Fontana *et al*, 27 of 30 patients had a late systolic murmur. In one third of these, it was heard only in the sitting position. Clicks were heard in 20 of the 30 patients but were heard best when patients were in the supine position and were frequently inaudible in the sitting position. The murmur occasionally becomes so loud in the upright position that it is referred to as a "whoop" or "honk."

The current explanation for this auscultatory variability centers around left ventricular volume. When the left ventricular volume is small, the mitral leaflets are closer to a position of prolapse and there is more redundancy of the chordae. Therefore, prolapse occurs earlier in systole. This early prolapse results in accentuation of the mitral insufficiency murmur. In addition, the systolic click is frequently lost, due either to its fusion with the first heart sound or by obliteration by the accentuated murmur.

D. Laboratory Tests

1. Chest roentgenograms are reported as normal by most investigators. Prominence of the pulmonary artery and enlargement of the left atrium are occasionally noted and skeletal abnormalities such as pectus excavatum, straight back and kyphosis are frequent in some series.⁶

2. The electrocardiogram is abnormal in about

75% of patients. Up to 50% of these changes will consist of T wave inversion or flattening in leads II, III and aVF simulating inferior ischemia.^{4, 5, 13, 20} Other changes include more general T wave changes, ST segment depression, Q-T prolongation, prominent U waves and various atrial and ventricular arrhythmias.

3. A recent advance in substantiating the diagnosis of mitral prolapse without cardiac catheterization is echocardiography. Close correlation between left ventricular angiography and echocardiography has been demonstrated.^{21, 22} If a good quality echocardiogram can be obtained, systolic separation of the mitral leaflets usually can be demonstrated when a late systolic murmur is present. Such a finding helps confirm the diagnosis.

4. Except as an investigational tool, cardiac catheterization has little to add in defining this syndrome. Mitral and tricuspid valve prolapse may be visualized angiographically. Coronary arteriograms and hemodynamics are usually normal, even in the presence of striking symptoms and electrocardiographic changes. Several authors have described abnormalities in left ventricular contraction.⁶ However, no distinct pattern has arisen thus far.

In summary, if your patient is a healthy appearing young or middle-aged adult with cardiorespiratory complaints which impress you as neurotic but whose heart sounds a bit unusual, think of the prolapsing mitral syndrome and attempt to make the diagnosis, for making this diagnosis has definite prophylactic and therapeutic implications as will now be discussed.

Dr. Stone: Although most patients with the prolapsing mitral valve syndrome have no serious problems, significant difficulties can occur.

Mitral Insufficiency: A genetic or congenital abnormality occurs in the mitral valve and, sometimes, in the chordae tendinae. As explained by Dr. Willson, the valve closes imperfectly, causing late systolic mitral insufficiency. The valve leak is usually insignificant, but in a few cases may gradually progress to serious regurgitation. Mitral insufficiency tends to be more severe in older patients. Occasionally, there is chordal rupture with sudden, severe mitral insufficiency and congestive heart failure requiring prompt mitral valve replacement. In these cases, the chordae usually show myxomatous degeneration on histologic examination. Similar microscopic changes have been observed in the valve leaflets. An unusual complication of mitral valve replacement in a few patients has been dissection of the aorta from the site of cross clamping. Cystic medial necrosis of the aortic wall has been

found in these cases.

Bacterial Endocarditis: A few cases of bacterial endocarditis have now been reported in patients with the prolapsing mitral syndrome. Turbulent flow at the site of the valve leak, as well as structural changes in the mitral valve, are probably the underlying causes. We give patients with this syndrome a printed wallet card containing advice about antibiotics during dental work, surgery and other occasions to prevent bacterial endocarditis.

Arrhythmias: Although sudden death has been reported in several families and in isolated cases,²³ this complication is rare. It is much more common to have symptomatic premature ventricular contractions, ventricular tachycardia, paroxysmal atrial tachycardia, atrial flutter, atrial fibrillation or atrial premature contractions. As mentioned by Dr. Parker, it is our practice to do treadmill exercise tests or Holter monitoring on these patients since exercise may bring out significant arrhythmias. One should consider chronic arrhythmia prophylaxis when ventricular arrhythmias occur with exercise, even if the patient is asymptomatic. Propranolol is theoretically the drug of choice because, in addition to its usual antiarrhythmic properties, it does not increase the Q-T interval. It also reduces systolic stress on the posterior leaflet. I suggest first trying propranolol for tachyarrhythmias in patients with the click-murmur syndrome. Diphenylhydantoin also has been tried with success.⁷ Quinidine and procaine amide lengthen the Q-T interval but, nevertheless, have been helpful in some patients.

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(Continued on page 24)

Splenic Vein Thrombosis

Case Report

SPLenic VEIN THROMBOSIS is an infrequent but important cause of extrahepatic portal hypertension on the left side.¹⁻⁶ Isolated splenic vein thrombosis with variceal hemorrhage secondary to invasive carcinoma was first reported by Frick⁷ in 1922. Since then, isolated incidences secondary to perforated gastric ulcers, retroperitoneal fibrosis and pancreatic tumors have been reported, but it is most frequently seen in the patient with pancreatitis and its complications.^{1-6, 8, 9} There are no diagnostic features which distinguish these patients since they are frequently alcoholics with and without recurrent attacks of upper abdominal pain. Recognition is essential as splenectomy is curative, while a portal systemic shunt with its long- and short-term complications is detrimental. The purpose of this paper is to review the pressure measurements and radiographic studies of the portal venous system necessary to establish the diagnosis preoperatively and the changes in the dynamics of portal flow seen at laparotomy.

CASE REPORT

A 51-year-old diabetic man was admitted for evaluation of portal hypertension. The patient admitted to heavy alcoholic intake, but he had been in good health until five months prior to admission. At that time, he was admitted to a local hospital with massive hematemesis. He was transfused with seven units of blood,

but bleeding continued. At emergency laparotomy, a bleeding gastric varix was oversewn. The postoperative period was complicated by wound infection and gastric cutaneous fistula. The fistula and wound infection cleared with a residual large ventral hernia.

Physical examination at the time of admission revealed a thin man with proximal muscular atrophy and ascites. Abdominal examination revealed a large mid-line ventral hernia. The liver was not enlarged, but the spleen was massive and extended from the dome of the diaphragm to iliac crest. Laboratory data at admission revealed mild pancytopenia with a hematocrit value of 29%; hemoglobin level of 12 gm/100 ml, white blood cell count (WBC) of 2,300/cu mm with a reticulocyte count of 1.1%. Platelet count was 88,000/cu mm. His prothrombin time, partial thromboplastin time and the remainder of his liver function tests were within normal limits except for mild elevation of the alkaline phosphatase serum (255 I.U.—normal 30-80 I.U.). This was not fractionated. Esophageal varices were visualized at gastroscopic examination using the fiberoptic endoscope and were confirmed by barium esophagogram. The celiac arteriogram was normal except for a gigantic splenic artery, which measured 2.5 cm in diameter (Fig. 1). The splenic vein did not opacify and the portal vein filled via gastroepiploic collaterals during the venous phase. Superior mesenteric artery injection was normal. Variceal filling did not occur during the venous phase. Hepatic wedge pressure obtained was 40 mm of Mercury (corrected sinusoidal pressure 25 mm of Mercury). To obtain better definition of the portal venous system, a splenoportogram was performed. Splenic pulp pressure was 53 cm of water. Spleen to hilar time was prolonged to greater than 22 seconds. The splenic vein did not visualize and numerous collaterals were seen filling the portal vein (Fig. 2).

At laparotomy, the liver appeared to be normal. This was confirmed by biopsy. Portal vein pressure was 20 cm of water. The pancreas was exposed through the gastrocolic ligament and was enlarged and firm. The gigantic splenic artery was visualized. Thrombosis of the vein just distal to the splenic hilum was confirmed. Biopsy of tissues from this area demonstrated chronic inflammation. There were no retroperitoneal masses or evidence of tumor. The splenic artery was controlled outside the splenic hilum and the splenectomy was performed. Pathology examination revealed splenic vein thrombosis with focal splenic infarctions.

The patient's postoperative course was uncomplicated. Barium esophagogram prior to discharge demonstrated decompression of the gastric and esophageal

The author accompanies this case report with an outline for the accurate diagnosis, which is mandatory, and the management of a patient with esophagogastric varices secondary to splenic vein thrombosis. He also reviews the studies necessary to establish the diagnosis preoperatively and the pathological changes seen at laparotomy. Splenic artery enlargement is indicative of hyperemia on the left side in this form of extrahepatic portal hypertension. Dr. Codd is from the Department of Surgery, St. Louis University and Unit II Surgery, John Cochran Veterans Administration Hospital.

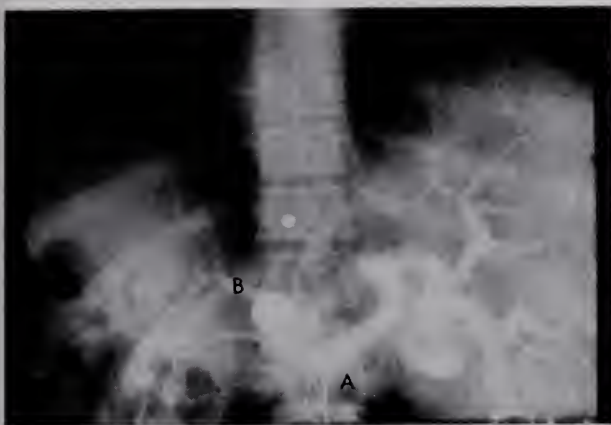


Fig. 1 Preoperative Selective Celiac Angiogram. (A) Giantic splenic artery. (B) Hepatic artery.

varices. Postoperative hepatic wedge pressure was 15 mm of Mercury with a corrected sinusoidal pressure of 6 mm of Mercury (Fig. 3).

The patient is now one year postoperative without evidence of recurrent bleeding and continues to progress satisfactorily.

COMMENTS

The natural history of isolated splenic vein thrombosis is uncertain. Sutton *et al.*,³ in a collected series of 54 patients, reported an instance of upper gastrointestinal hemorrhage in 64%, splenomegaly in 64% and anemia and leukopenia in 9%. Arner *et al.*¹⁰ and Rignault *et al.*¹¹, in discussing splenoportographic changes in patients with chronic pancreatitis, described a total of 18 patients with complete splenic

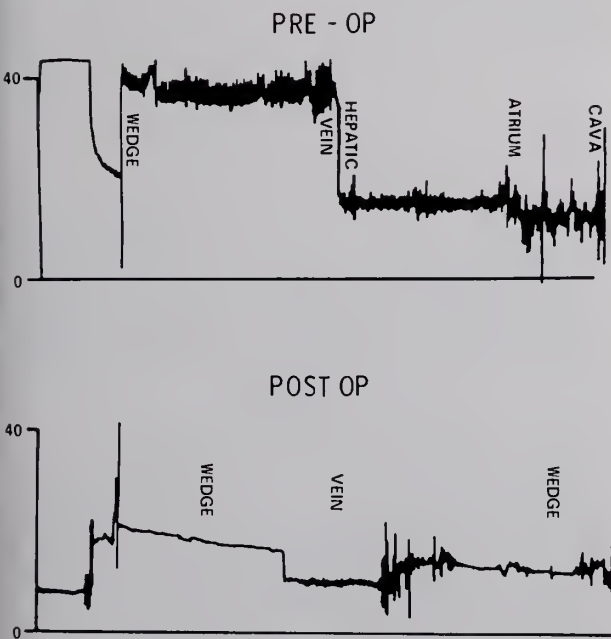


Fig. 3 Hepatic wedge pressure: preoperative and postoperative.

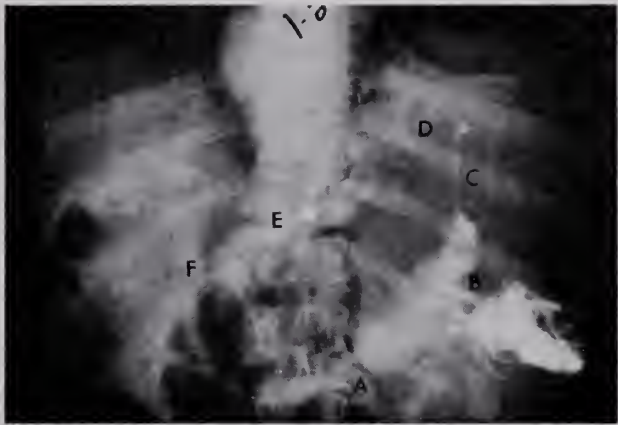


Fig. 2 Splenoportogram. (A) Cavernous thrombosis splenic vein. (B) Spleen. (C) Short gastric collateral. (D) Gastric varices. (E) Coronary vein. (F) Portal vein.

vein thrombosis, five of whom had upper gastrointestinal bleeding. Obstruction of the splenic vein results in a rise in the intrasplenic pulp pressure which is transmitted via the short gastrics and the gastroepiploic veins to tributaries around the fundus and greater curvature of the stomach (Fig. 4). As a result, two sets of collaterals are formed between the veins draining the greater and lesser curvature of the stomach and the portal vein lead to formation of gastric varices and around the veins at the lower end of the esophagus and systemic veins which lead to the development of esophageal varices. Rignault *et al.*¹¹ believe that it is inadequate development of the porta-portal collaterals that leads to gastrointestinal bleeding. The majority of patients with variceal bleeding have had significant splenomegaly.¹⁻⁶

Splenectomy is an effective procedure not as-

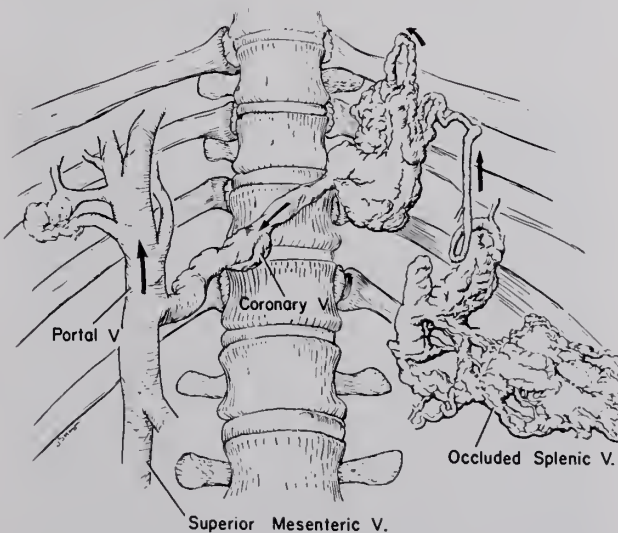


Fig. 4 Hemodynamic flow in isolated splenic vein thrombosis.

sociated with the intraoperative or postoperative problems of portosystemic shunting. Therefore, a correct diagnosis is mandatory. Although laboratory evidence of severe cirrhosis of the liver may be absent and splenomegaly usually is present,¹⁻⁶ there are no absolute diagnostic features.

The preoperative diagnosis can be established only by appropriate pressure measurements and angiography. Hepatic wedge pressures are usually normal except in patients with associated liver cirrhosis and generalized portal hypertension. Selective celiac angiography may establish the diagnosis with demonstration of splenic vein occlusion, gastric varices and filling of the portal vein via collaterals. Varices do not fill on superior mesenteric artery injection. We agree with Salam *et al*⁶ that the venous phase is frequently inadequate. Splenoportography¹² which allows measurement of splenic pulp pressure which can be correlated with hepatic wedge pressure is the procedure of choice.

Characteristic findings at laparotomy include marked dilatation of the gastroepiploic veins, an enlarged spleen and a normal liver. The diagnosis can be confirmed by intraoperative portal pressure measurement. Control of the splenic pedicle outside

the hilum prior to mobilization of the spleen is advisable.

The enlarged splenic artery,¹³ which is indicative of the hyperdynamic status in this segmental form of portal hypertension, is best controlled at the upper border of the pancreas. In this manner, blood loss from the numerous dilated collaterals in the area can be significantly decreased.

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Prolapsing Mitro Valve Syndrome

(Continued from page 21)

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— See the Preliminary Program on Page 10 —

Toeing In and Toeing Out in Children

A SIGNIFICANT PROPORTION of children referred to the University of Missouri Medical Center Orthopedic Surgery Service have the worrisome tendency either to toe in or toe out as reason for referral. Since most of these children have no need for medical treatment, it is the intent of this article to help the referring physician determine more precisely which of these apparently deformed children actually need an orthopedic referral.

It is generally accepted that the average adult walks and stands with about 15° of toeing out with each lower extremity. Also, the child who toes out less than this or whose feet assume a position pointing more or less toward one another anteriorly is said to toe in. This posture results from the presence of one, two or all three of the conditions referred to as femoral anteversion, internal tibial torsion and metatarsus adductus. In the absence of any neuromuscular disorder, which should be detectable by physical examination and history, femoral anteversion and tibial torsion should be thought of as normal, developmentally dynamic variations in bone shape. Metatarsus adductus, however, should be considered an abnormality which usually requires therapy for its correction. Toeing out may be caused by femoral retroversion and external tibial torsion, which are opposites of two of the above anatomic phenomena.

Femoral Anteversion and Retroversion

These terms refer to the fact that in most adult

human skeletons that have been examined post-mortem and in living adults studied radiographically or at the operating table, the axis of the femoral head and neck inclines about 15° forward from the coronal plane. If a child walks with the patellae pointing somewhat medially and forward instead of straight ahead, that child is said clinically to have femoral anteversion. Physical examination which shows that the hip internally rotates (Fig. 1) further than it can externally rotate (Fig. 2) confirms the diagnosis. Other studies have shown that there is a definite tendency in otherwise normal children for "femoral anteversion" to decrease with age until average values around 15° are achieved in most adults. There have been no published reports proving that an above- or below-average amount of anteversion in the adult predisposes to any physical difficulties.

Once the diagnosis of femoral anteversion is made, the parents can be told that this is a self-correcting variation of normal, but that the correction will take most of the growing period of the child.¹⁻⁵ Unless the child frequently trips by catching one toe behind the other heel, there is no necessity for treatment. There are many modes of treatment, including advice about how the child should sit or lie (encouraging external rotation at the hips) and shoe wedges,⁶ but only two measures will make an immediate difference in gait and only one of these will alter the anteversion itself. The former measure is the use of twister braces which



Fig. 1 Internal rotation of hips is about 65 degrees (measured as the angle of the calf with a vertical line).



Fig. 2 External rotation of hips is about 30 degrees (measured as in Fig. 1).



Fig. 3 The line between the examiner's thumb and index finger on the malleoli of each ankle is in the coronal plane, indicating 30 degrees of internal tibial torsion.



Fig. 4 A bow can be seen in the lower third of the calves of this child with internal tibial torsion.

are long, rubber-covered, spring-loaded cables passing from a pelvic band to the shoes and set to externally rotate the lower extremities forcibly. The one measure which will instantly correct the anteversion is that of femoral osteotomy, which usually is done low in the shaft. Because anteversion spontaneously improves, the recommendation of osteotomy can be made only if the parents feel the risks

of surgery and postoperative immobilization are less significant than their anxiety over the cosmetic defect and its relatively low speed of self correction.

It should be noted that, more rarely, children may toe out as a result of femoral retroversion, which is just the opposite of the phenomenon described above. However, the prognosis is identical to that of femoral anteversion as are the possibilities of treatment.⁶

Tibial Torsion

Toeing in can be caused by the shapes and relationships between the tibia and fibula wherein the axis of the ankle joint is directed somewhat toward the midline of the body when the upper end of the tibia is aligned so that the knee hinges in the sagittal plane. The child with isolated internal tibial torsion walks with knee and patella directed straight forward but with the entire foot rotated inward so that the toes point more medially and not straight ahead in the plane of flexion of the knee. One can confirm the diagnosis of internal tibial torsion by physical examination wherein the child sits on the edge of the table with the calves hanging toward the floor. The long axis of the femur is placed in a line between the patient's hip and the examiner's eye. If there is no tibial torsion, the long axis of the foot will also form part of that same line. If there is internal tibial torsion, the long axis of the foot will be turned so that the heel points somewhat laterally to that line and the toes point somewhat medially (Fig. 3). The angle formed between the line of the axis of the femur and the foot is said to be the angle of internal torsion. When there is as much as 20° to 30° of internal torsion, there is nearly always a bow in the lower third of the tibia which adds to the apparent deformity (Fig. 4). External tibial torsion is said to be present when in this position of examination, the heel points somewhat medial to the femoral axial line and the toes point laterally to that line.

The prognosis of tibial torsion and the tibial bow which may accompany it also is one of self-correction, but this is a more rapid process than that of the correction of femoral anteversion. Most children have corrected to neutral internal tibial torsion by age four or five years.^{6, 7}

Treatment modes for tibial torsion are the same as those for femoral anteversion and femoral retroversion.⁶ That is, there is no published proof that shoe wedges or admonitions to change the child's posture have a beneficial effect. It is rare that tibial torsion is severe enough to cause the child to catch

the toes of one foot behind the heel of the other and trip during gait. If this does occur, the same twister braces mentioned above can be used temporarily. This usually is necessary for no longer than a few months. And for this condition as well, if parents feel that the operative risks are preferable to waiting for spontaneous correction of the tibial torsion, they can have rotational tibial osteotomies done, usually in the proximal one fourth of the tibia. This, of course, requires hospitalization, general anesthesia and several weeks or months of postoperative immobilization of the extremities.

I once had to operate on a 3-year-old boy to perform flexor tendon releases of the great toes bilaterally. This was necessitated by scar contractions in these muscles following proximal tibial rotational osteotomies performed as the child was beginning to walk early in his second year. This child had no neuromuscular disorder. If the surgeon had refrained from the rotational osteotomies, the secondary tenotomies would not have had to be done and most likely, the tibias would already have corrected in the time between the ages one and one half and three years.

Another form of treatment for both the femoral and tibial rotational problems is the Dennis-Browne splint. This is a bar on which two shoes are placed in the desired position of internal or external rotation and in which the child sleeps. There is no published proof that this is an effective measure for changing the natural history of these rotational problems. I saw one patient at the age of four whose mother had told me that the child's physician had prescribed a Dennis-Browne splint for internal tibial torsion or, at least, toeing in and whose rotational problem did not change at all in the four months the child wore this splint at night and during naps. The mother went on to say that she grew discouraged with the splint and discontinued its use. She said that within another two months, the rotational problem rapidly cleared spontaneously. It was her mistaken opinion that the splint had actually prevented or, at least, slowed down correction of what she regarded as a deformity. She definitely had unkind feelings toward the physician who had prescribed the splint. Of course, if she had used the splint two months longer, the physician would have received credit for the "cure." This case, like that of the boy on whom I had to perform flexor tenotomies, was an unusual case. However, I consider both cases as supporting the already published theses that rotational osteotomy can be harmful and that femoral and tibial rotational problems spontaneously correct in the absence of neuromuscular disease.

Toeing in and toeing out in children without neuromuscular disease can be caused by variations in the shapes of the tibia and femur. Both are normal and self-correcting. Toeing in also can be caused by metatarsus adductus, an abnormality which usually requires orthopedic treatment. The author identifies these conditions. Dr. Scherr is in the private practice of orthopedics.

Metatarsus Adductus

This condition also is referred to as metatarsus varus. Here, the foot has a deviation of all the metatarsals away from the mid-line axis of the foot and heel so that the toes point inward and toward the other foot. The cause of this congenital condition is unknown. In moderate to severe cases, treatment is always necessary for correction.^{6, 8-10} Metatarsus adductus may accompany internal tibial torsion or femoral anteversion or both, or it may be an isolated deformity. While internal tibial torsion and femoral anteversion usually are found bilaterally, metatarsus adductus is more commonly unilateral. It may seem to resemble clubfoot ("talipes equinovarus"), but clubfoot always has shortening of the achilles tendon so that the foot cannot be dorsiflexed to a right angle. Also, when the foot is viewed from behind, the heel in clubfoot angulates medially from the vertical line of the achilles tendon whereas the heel in metatarsus adductus, as in the normal foot, angulates laterally from the vertical line of the achilles tendon.

Examination of the foot for metatarsus adductus involves checking for heel cord tightness first. This is present only in clubfoot and necessitates immediate orthopedic referral. If the ankle dorsiflexes above a right angle, the examiner grasps the calcaneus and directs its long axis toward the examiner's eye in front of the foot. In the normal foot the axial line of the calcaneus passes anteriorly through the second metatarsal or through the web space between the second and third metatarsals. In metatarsus adductus the axial line of the calcaneus will pass anteriorly through the third metatarsal or even more lateral portions of the metatarsa as the severity of the condition is found to be greater. The examiner should then force the heads of the metatarsals laterally to determine the degree of rigidity. If the group of metatarsals can be forced laterally (abduction) so that the second metatarsal can lie passively lateral to the axial line of the calcaneus, the foot is relatively supple and the metatarsus ad-



Fig. 5 The front part of the foot can be abducted (laterally) beyond the midline of the heel, indicating an over-correctible or mild degree of metatarsus adductus.



Fig. 6 The front part of the foot can be abducted only to the midline of the heel, indicating a barely correctible or moderate degree of metatarsus adductus.



Fig. 7 The front part of the foot cannot be abducted to the midline of the heel, indicating a passively uncorrectible or severe degree of metatarsus adductus.

ductus is considered to be mild (Fig. 5). If forcing the metatarsals toward abduction can only restore the second metatarsal to the axial line of the calcaneus but not beyond it, the condition is referred to as moderate (Fig. 6). If the forefoot cannot be abducted passively and the axial line of the calcaneus stays lateral to the second metatarsal or the next space laterally, the condition is referred to as severe (Fig. 7).

In mild metatarsus adductus, the only treatment necessary is gentle forefoot abduction manipulation by the parent for five or ten times at each diaper change or three or four times a day if the child is older. The manipulations that the parent is to use consist of grasping the heel with one hand and the metatarsal heads with the other hand and forcing the metatarsal heads laterally as far as the child's pain tolerance allows and then releasing the pressure and repeating it five or ten times with each manipulation session. If the condition is moderate, these manipulations should be complemented with the use of hard soled shoes worn on the opposite feet. The parents may buy straight-last or reverse-last shoes to accomplish the same kind of additional correction, but these are more expensive

(Continued on page 30)

Lipoma of the Diaphragm

Case Report

ALTHOUGH PRIMARY TUMORS of the diaphragm are uncommon, the diagnosis should be considered when dealing with roentgenologic densities contiguous with the diaphragm. The following case is reported to emphasize that not all wedge-shaped, roentgenologic densities adjacent to the diaphragm represent pulmonary lesions.

CASE REPORT

A 78-year-old white man was admitted to the hospital complaining of "fullness in his chest" and blood-tinged sputum. He had a five-year history of bronchitis with a chronic, productive cough. The review of systems was negative and the patient denied a smoking history. Chest X-rays revealed a wedge-shaped lesion in the inferior, posterior portion of the left lung field (Fig. 1). A lung scan demonstrated a perfusion defect in that same area. Angiography was not done. Initial EKGs showed ST segment elevation in leads V-2 and V-3 with nonspecific T-wave changes throughout the precordial leads. Serum enzymes were within normal limits. Blood gases on admission were as follows: pH—7.45, pO_2 —71.5 mmHg, pCO_2 —31.4 mmHg, % O_2 saturation—95.3 and bicarbonate—21.5 mEq/L.

The clinical diagnosis of pulmonary embolus with infarct was made and intravenous heparin therapy was begun, 1,500 units/hour. The patient did well for the next eight days without a significant change in serial chest x-rays. On the ninth hospital day, he became weak and complained of pain in the right flank which radiated into the right groin. Hypotension rapidly ensued and was followed by cardiopulmonary arrest. Resuscitation was unsuccessful.

AUTOPSY FINDINGS

The autopsy revealed a recent, massive retroperitoneal hemorrhage. The lungs were crepitant throughout and the pulmonary arteries were free of emboli and thrombi. The diaphragmatic leaves were normally situated and attached to the left hemidiaphragm. Extending into the intrathoracic space was a spherical, fatty mass measuring 9 cm in diameter and weighing 390 gm. (Fig. 2). Microscopically, the mass consisted of mature, adipose tissue. The heart contained a recent (two to four days) anterior-septal myocardial infarction. Changes of bronchitis and moderate panlobular emphysema were present. The remainder of the autopsy revealed no other significant findings.

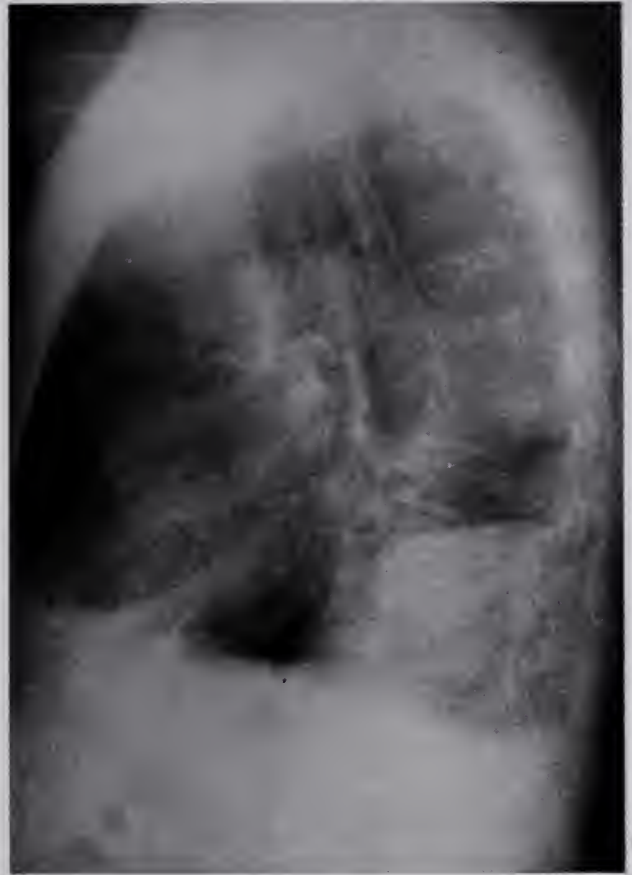


Fig. 1 Lateral chest roentgenogram.

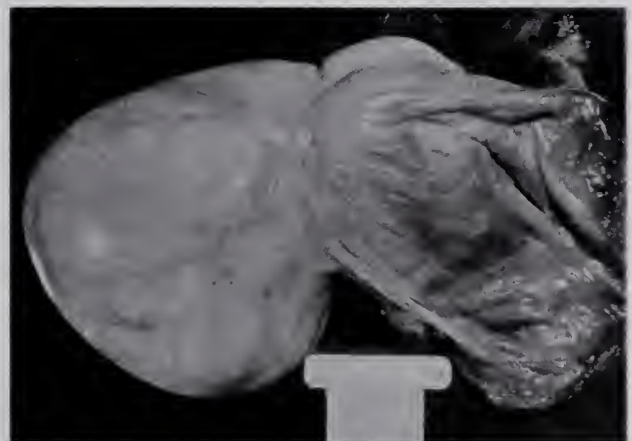


Fig. 2 Lipoma and portion of diaphragm.

This case report describes a patient with an intrathoracic extrapulmonary lipoma of the diaphragm. The authors underscore the importance of considering extrapulmonary causes of thoracic roentgenographic densities and review the salient features of primary diaphragm tumors. Mr. Bukstein, a former Post-Sophomore Fellow in the Department of Pathology, is a junior medical student and Dr. Meyers is an Instructor, Department of Pathology, University of Missouri Medical Center.

COMMENT

Wiener and Chou,¹ in their critical review of the literature from 1868 to 1963, described only 71 primary diaphragmatic tumors. Olafsson² reviewed an additional 13 cases from 1963 to 1972. Diagnosis of a primary diaphragmatic tumor is often difficult due to nonspecific symptomatology. Wiener and Chou¹ reported that 79% of the patients studied complained of a variety of symptoms including

cough, dyspnea, gastrointestinal discomfort and chest pain or pain in the epigastrium which was often aggravated by deep breathing, straining or physical activity. Fifty-two of the 85 primary tumors of the diaphragm described by Wiener and Chou¹ and Olafsson² were benign.

The most common benign tumor is the lipoma.^{1, 2} The majority of malignant tumors are sarcomas of which fibrosarcoma is the most common. Diagnosis of primary tumors of the diaphragm is most often made by chest x-ray. Anderson³ concluded that past roentgenograms, along with sequential radiographic studies, were of greatest diagnostic value in evaluation of diaphragmatic irregularities. Fluoroscopy, pneumothorax, pneumoperitoneum, bronchogram and barium studies also may aid in diagnosis of diaphragmatic tumors. Since many of these tumors are malignant, biopsy should be performed to establish a specific tissue diagnosis.

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Toeing In Toeing Out

(Continued from page 28)

than standard shoes. When buying standard shoes to be worn on the opposite feet, they must be tried on in that manner. It usually is true that a pair of shoes must be bought about a half size larger than if they are to be fitted in the usual manner. If the deformity is found to be severe, then corrective casting must be initiated by an orthopedist with the cast being changed every three to seven days until the metatarsals can be abducted into an over-corrected position. Then, for several months, manipulations and reversed shoes may be used.

When properly treated, metatarsus adductus never recurs once it has been corrected. If discovered too late, casting cannot correct the forefoot and surgical repositioning of the forefoot must be performed either through the metatarsals or through the tarsal-metatarsal joints.

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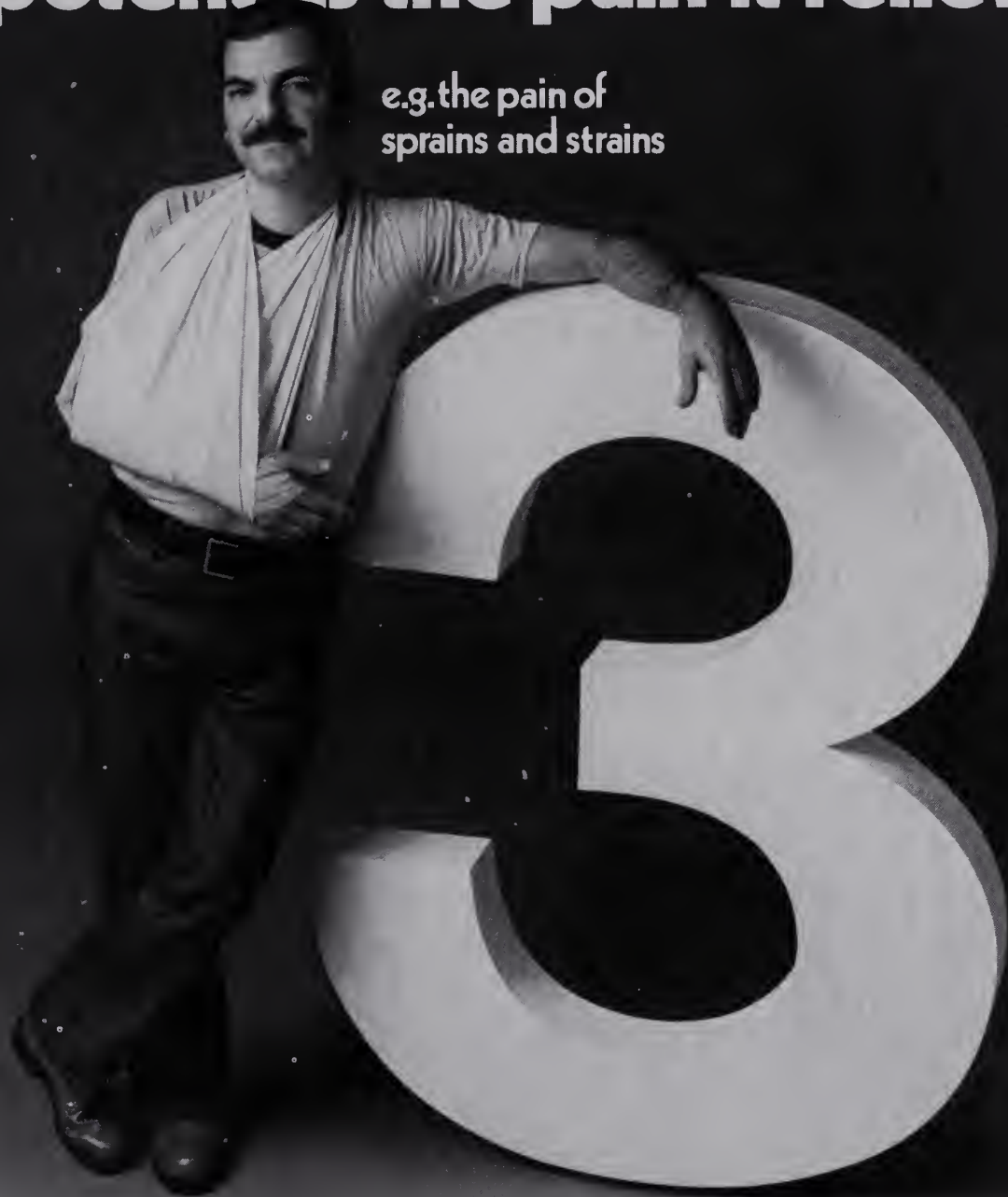
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Effectiveness across the spectrum of most common forms of insomnia

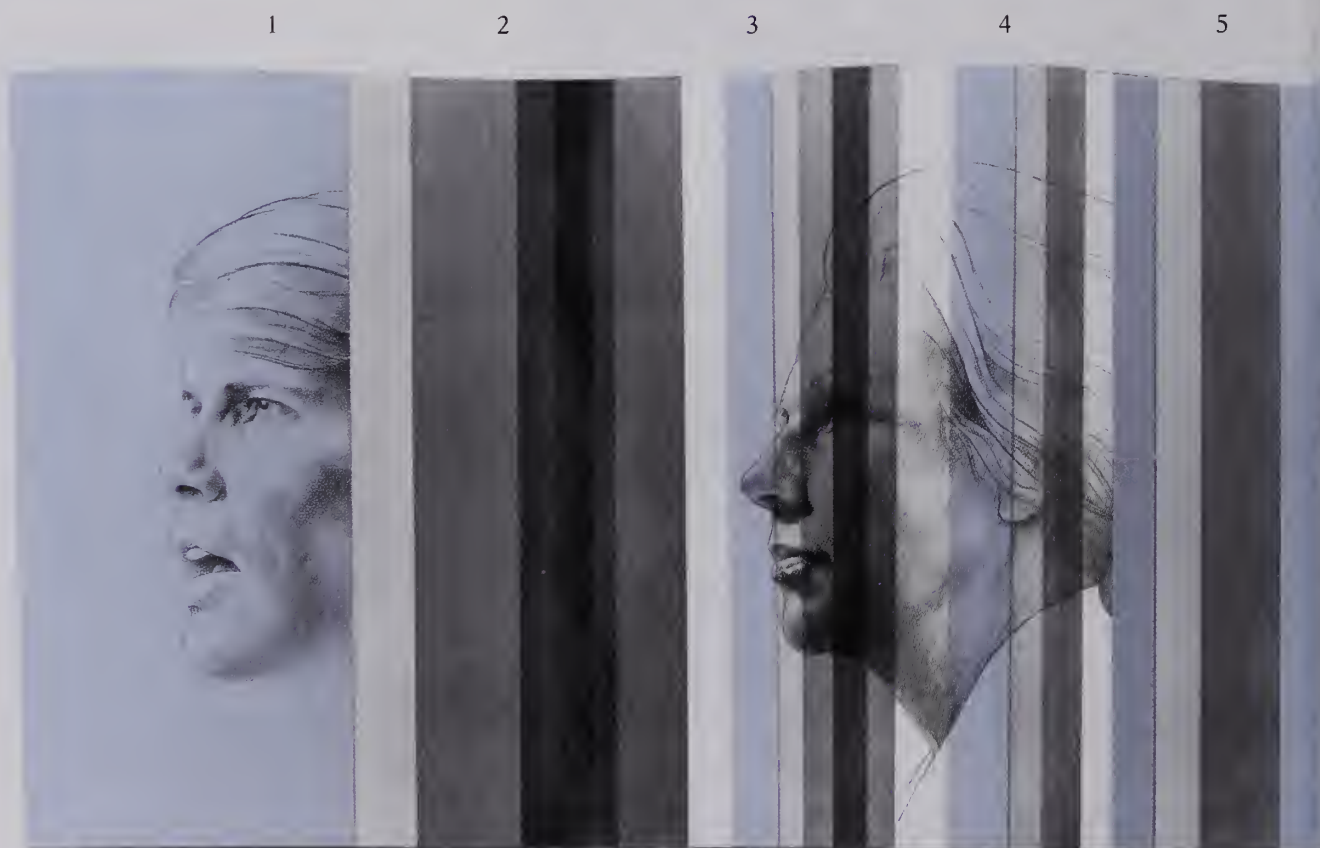
Awake too long, awake too often, awake too early...

These are the most common forms of insomnia, and may occur singly or in any combination. The night of troubled sleep depicted here comprises all three types. As the night progresses from left to right, each sleep stage is identifiable by its own shade of gray. Blue represents "Awake."

As you can see, this hypothetical "patient" takes well over an hour to fall asleep, awakens several times during the middle of the night and awakens too early in the morning.

Sleep Stages

	Awake		Stage 2
	REM		Stage 3
	Stage 1		Stage 4



Awake too long

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The relative safety of Dalmane (flurazepam HCl) is well documented

Dalmane (flurazepam HCl) is relatively safe and well tolerated; morning "hang-over" has been infrequent. The usual adult dosage is 30 mg; in elderly or debilitated patients, limit initial dosage to 15 mg to preclude over-sedation, dizziness or ataxia. Caution patients about possible combined effects with alcohol and other CNS depressants.

Broad-spectrum medication for the most common forms of insomnia

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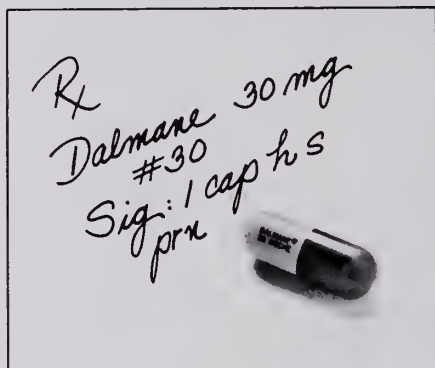
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Indications: Effective in all types of insomnia characterized by difficulty in falling asleep, frequent nocturnal awakenings and/or early morning awakening; in patients with recurring insomnia or poor sleeping habits; and in acute or chronic medical situations requiring restful sleep. Since insomnia is often transient and intermittent, prolonged administration is generally not necessary or recommended.

Contraindications: Known hypersensitivity to flurazepam HCl.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. Caution against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving). Use in women who are or may become pregnant only when potential benefits have been weighed against possible hazards. Not

recommended for use in persons under 15 years of age. Though physical and psychological dependence have not been reported on recommended doses, use caution in administering to addiction-prone individuals or those who might increase dosage.

Precautions: In elderly and debilitated, initial dosage should be limited to 15 mg to preclude oversedation, dizziness and/or ataxia. If combined with other drugs having hypnotic or CNS-depressant effects, consider potential additive effects. Employ usual precautions in patients who are severely depressed, or with latent depression or suicidal tendencies. Periodic blood counts and liver and kidney function tests are advised during repeated therapy. Observe usual precautions in presence of impaired renal or hepatic function.

Adverse Reactions: Dizziness, drowsiness, lightheadedness, staggering, ataxia and falling have occurred, particularly in elderly or debilitated patients. Severe sedation, lethargy, disorientation and coma, probably indicative of drug intolerance or overdosage, have been reported. Also reported were headache, heartburn, upset stomach, nausea, vomiting, diarrhea, constipation, GI pain, nervousness, talkativeness, apprehension, irritability, weakness, palpitations, chest pains, body and joint pains and GU complaints. There have also been rare occurrences of leukopenia, granulocytopenia, sweating, flushes, difficulty in focusing, blurred vision, burning eyes, faintness, hypotension, shortness of breath, pruritus, skin rash, dry mouth, bitter taste, excessive salivation, anorexia, euphoria, depression, slurred speech, confusion, restlessness, hallucinations, and elevated SGOT, SGPT, total and direct bilirubins and alkaline phosphatase. Paradoxical reactions, e.g., excitement,

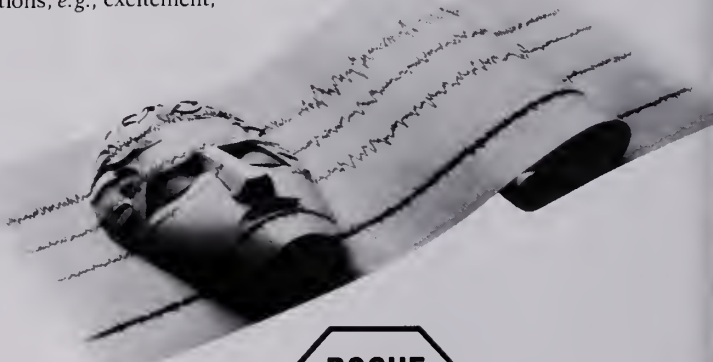
stimulation and hyperactivity, have also been reported in rare instances.

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President's Message

A very productive meeting sponsored by the Jackson County Medical Society's Ad Hoc Committee on Medical Malpractice Legislation was held on December 20 in Kansas City.

More than 70 physicians and approximately 20 Legislators met for breakfast and to discuss the professional liability insurance situation.

The main topic, as expected, was the proposed legislation dealing with malpractice which has been pre-filed in the Missouri General Assembly. In my talks with the Legislators, it seemed apparent that they were in general accord with our feelings on the proposed bills with the exception of House Bill 1447—the measure limiting contingent fees.

Several Legislators said that HB 1447 would pit lawyers against physicians and could result in a battle that would negate the positive attitudes of Legislators toward the other proposed bills. One Legislator said that HB 1447 is an attempt to set lawyers' fees, and he reminded that physicians have fought long and hard to prevent their own fees being set.

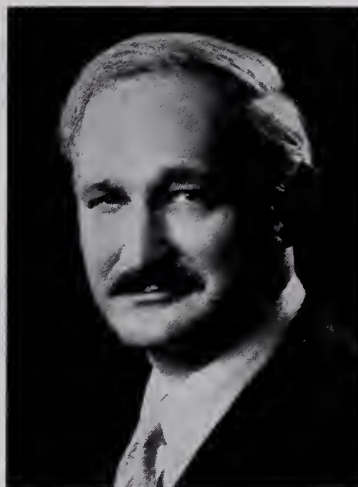
Another point stressed by the Legislators was that physicians will need a united front in the area of malpractice legislation. If we cannot agree among ourselves, how can we expect the Legislators to support the medical profession? In that regard, I urge you to read the explanation of the proposed legislation in the *News Roundup* section of this issue. If you disagree with the bills, contact me or MSMA Headquarters immediately.

I, along with others, have been in touch with the leadership of both Houses of the General Assembly and have suggested that the malpractice bills will be given top priority in assignments to committees. This means that many physicians from around the state may be called to testify before committee hearings in January.

In pushing for remedial legislation, we also must remember not to overreact! An example of this occurred in Tennessee where a swiftly-drawn and often-amended Joint Underwriting Association law was passed. The law apparently has so many flaws that it did little for the malpractice insurance situation in Tennessee, and the physicians of that state must again garner their forces to attempt to repair the law.

Switching subjects for a moment, I have been asked by some MSMA members why we have not formed a mutual assessment insurance company? The Council appointed an Ad Hoc Committee to study mutual assessment companies. You will find the Committee's interim report in the News Report. The Committee is conducting a survey of the MSMA membership, and it is imperative that these questionnaires be returned to the Association so that a proper determination of the feasibility of forming such a company can be realized. Some of the initial problems are that nearly one half of our membership would have to join the company, the company would require about \$4 million in capitalization and the current reinsurance market is very unstable. You will receive further information as the questionnaires are tabulated.

I wish you all a very Happy New Year and ask for your continued support for the Association during 1976!



R. Allen Chandler, M.D.

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Woman's Auxiliary

It is a pleasure to introduce Mrs. W. J. (Pat) Stelmach of Kansas City as my guest columnist. Pat is Chairman of the Legislation Committee for the MSMA Auxiliary and offers important suggestions for all MSMA members.

Warmly,

Mary Kay McPhee

I believe that I, as a free citizen in a free land, am obligated to defend my beliefs in the ways permitted to me and required of me, by our form of Government.

—DR. BENJAMIN RUSH



Mrs. William R. McPhee
President

We all have become aware in recent years of the many articles written about the value of wives. But, I ask you to forget about the usual nurse, cook, housekeeper, chauffeur, Den Mother, Brownie Leader *et al* and consider the Lobbyist. In this day of overwhelming political pressures, this, indeed, is the most important role she may fill. To fill this role, however, your wife needs help from you so that she may be effective by being *informed*. An uninformed lobbyist can do more harm than good. Therefore, I make the following suggestions:

1. Take home: MISSOURI MEDICINE, the *AMA News* and all materials sent to you by the MSMA so that your wife can read them.
2. Tell your wife to contact her County Auxiliary Legislation Chairman and ask what she can do to get involved.
3. Does she know any legislators so that she can become a Key Woman to serve as liaison with that legislator?
4. Is she "plugged in" to the LEGS line? Be sure that she is ready for fast action on bills when they come up in the Missouri General Assembly or the U. S. Congress.
5. Ask her to attend hearings held in your area with you or in your place.
6. Ask her to be willing to go to Jefferson City to show interest in legislative bills.
7. Do you have a FAMILY membership in MMPAC? It's only \$40—a real bargain!

Thank you,
Pat Stelmach
Legislation Chairman

County Society News

FIRST DISTRICT

COUNCILOR

JOHN N. MARTIN, M.D., ST. JOSEPH

BUCHANAN COUNTY MEDICAL SOCIETY

Dr. G. Tyson Carpenter was installed as President of Buchanan County Medical Society at the 72nd annual meeting held at the St. Joseph Country Club on December 3.

The meeting for physicians and wives included dinner, installation of officers, entertainment and dancing with music provided by the Kix Band.

Dr. William B. O'Connor, President for the past year, was the installing officer. Also installed were Dr. Richard O. Craig, President-Elect, who will head the Society in 1977; Dr. Edmund W. Kline, Vice-President; Dr. Carl K. Ness, Secretary; and Dr. Robert W. Kieber, Treasurer for the 23rd consecutive year.

Dr. John R. McDaniel will serve as a member of the Board of Censors. Dr. Allen I. Herman and Dr. Charles N. Mullican will be Delegates to the MSMA. Drs. Philip Acuff, Gerald E. Fox, Berwyn

H. Moen and Gordon S. Paulson will be Alternate Delegates.

Dr. Robert R. Stuber will serve on the Committee on Public Policy; Dr. Paul M. Beck will begin a five-year term on the Board of Trustees; and Dr. O'Connor will be on the Executive Secretary Committee.

The event was attended by 108 physicians and wives. Arrangements were made by the wives of the program committee members who are Mrs. Edward H. Andres, Mrs. Robert R. Stuber and Mrs. A. Wallace McDonald with the President and Immediate Past-President of the County Auxiliary, Mrs. Edward M. Stevens and Mrs. Lawrence H. Pifer.

The Buchanan County Medical Society was formed in 1903 when it succeeded the St. Joseph Medical Society. The original organization was established more than 100 years ago.

GRAND RIVER MEDICAL SOCIETY

The Grand River Medical Society held its Annual Christmas Meeting at the Chillicothe Country Club on December 11. Heading the list of honored guests were MSMA President and Mrs. R. Allen Chandler of Kansas City and Mr. and Mrs. Ray McIntyre, Mr. and Mrs. Don Wilson and Mr. Royal O. Cooper of Jefferson City.

Social activities preceded the dinner. Dr. Chandler and Mr. McIntyre gave brief but interesting speeches. Sadly missed were the after-dinner jokes of Dr. John Martin of St. Joseph who could not attend because of inclement weather.

After the dinner, a hilarious and delightful medley of songs were sung by "local talents" and recent "vacationers" in Hawaii. They were Joe and Dorothy Conrad, George and Erika Mandler and Frank and Helen Daley. Next, gifts and prizes were distributed and awarded at an enjoyable game of bingo.

Members and their wives from Chillicothe who attended the meeting were Dr. and Mrs. Tom N. Cofer, Dr. and Mrs. Joseph Conrad, Dr. and Mrs. R. J. Brennan, Dr. and Mrs. George Mandler, Dr. and Mrs. Leonard Fair, Dr. and Mrs. John Rose, Dr. and Mrs. Dale Vandiver, Dr. and Mrs. Jin Yoon and Dr. and Mrs. Hermanito Trinidad.

Those from Brookfield were Dr. and Mrs. John Dixon, Dr. and Mrs. Ralph Bohnsach and Dr. and Mrs. B. Howell. Others in attendance were Dr. and Mrs. John Platz, Dr. R. H. Staton and Dr. and Mrs. Warren Allen of Carrollton; Dr. and Mrs. Frank Daley of Hamilton; and Dr. and Mrs. Albert Cross of Trenton.



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THIRD DISTRICT

COUNCILOR

DONALD R. JUDD, M.D., ST. LOUIS

ST. LOUIS MEDICAL SOCIETY

Dr. James M. Stokes was elected president for 1975-1976 at the November meeting of the St. Louis Medical Society. Dr. Francis X. Lieb was elected to succeed Dr. Stokes in 1977.

Other officers elected were Dr. Paul L. Friedman, Vice-President, and Dr. Leslie Bond, Secretary.

All of the officers except Dr. Lieb will be installed in January.

TENTH DISTRICT

COUNCILOR

EUGENE T. HANSBROUGH, M.D.,
POPLAR BLUFF

MINERAL AREA COUNTY MEDICAL SOCIETY

The Mineral Area County Medical Society held a dinner meeting and election of officers in conjunction with a reorganization meeting of the Medical Society's Auxiliary at the Farmington Inn in Farmington on November 20.

Officers elected for 1976 are Dr. Robert C. Hoye

of Farmington, President; Dr. Jay F. Tuttle of Farmington, Vice-President; and Dr. C. H. Appleberry of Rivermines, Secretary-Treasurer.

Prior to the business meeting, Dr. Alex Sonnenwirth, Director of the Division of Microbiology at the Jewish Hospital in St. Louis, gave a talk on "Anaerobic Infections." His presentation was sponsored by the Upjohn Corporation.

After the dinner, the physicians' wives met with Mrs. William R. McPhee of Kansas City, President of the Women's Auxiliary to the Missouri State Medical Association, and Mrs. George P. Wilson of Columbia, President-Elect of the MSMA Auxiliary, to reorganize the Auxiliary to the Mineral Area Medical Society. Mrs. Caroline Chastain was elected President, Mrs. Delores Gray was elected Secretary and Mrs. Helen Tuttle was chosen as Treasurer. All are of Farmington.

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In Memoriam

Eugene L. Arnold, M.D., 1429 Central Ave., St. Louis 63139, a graduate of St. Louis University, 1934; member Chariton-Macon-Monroe-Randolph County Medical Society; age 74; died Oct. 16, 1975.

Charles Greenberg, M.D., 10669 Rochester Ave., Los Angeles, Calif. 90024, a graduate of the University of Louisville, 1911; member Buchanan County Medical Society; age 86; died Nov. 16, 1975.

E. Allen Pickens, M.D., 909 Rosedale, Fulton 65251, a graduate of Ensworth Medical College, 1908; member West Central County Medical Society; age 91; died Nov. 24, 1975.

Claude J. Allen, M.D., Rich Hill 64779, a graduate of the University Medical College of Kansas City, 1909; member West Central County Medical Society; age 89; died Dec. 2, 1975.

Joseph A. Lembeck, M.D., 4103 Flora Pl., St. Louis 63110, a graduate of St. Louis University, 1924; member St. Louis Medical Society; age 76; died Dec. 2, 1975.

John J. Inkley, M.D., 5203 Chippewa, St. Louis 63109, a graduate of St. Louis University, 1945; member St. Louis Medical Society; age 55; died Dec. 10, 1975.

Edwin G. Eigel, M.D., 3438 S. Grand Blvd., St. Louis 63118, a graduate of St. Louis University, 1928; member St. Louis Medical Society; age 71; died Dec. 13, 1975.

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PRESCRIBING INFORMATION Antiminth (pyrantel pamoate) Oral Suspension

Actions. Antiminth (pyrantel pamoate) has demonstrated anthelmintic activity against *Enterobius vermicularis* (pinworm) and *Ascaris lumbricoides* (roundworm). The anthelmintic action is probably due to the neuromuscular blocking property of the drug.

Antiminth is partially absorbed after an oral dose. Plasma levels of unchanged drug are low. Peak levels (0.05-0.13 µg/ml.) are reached in 1-3 hours. Quantities greater than 50% of administered drug are excreted in feces as the unchanged form, whereas only 7% or less of the dose is found in urine as the unchanged form of the drug and its metabolites.

Indications. For the treatment of ascariasis (roundworm infection) and enterobiasis (pinworm infection).

Warnings. *Usage in Pregnancy:* Reproduction studies have been performed in animals and there was no evidence of propensity for harm to the fetus. The relevance to the human is not known.

There is no experience in pregnant women who have received this drug.

Precautions. Minor transient elevations of SGOT have occurred in a small percentage of patients. Therefore, this drug should be used with caution in patients with pre-existing liver dysfunction.

Adverse Reactions. The most frequently encountered adverse reactions are related to the gastrointestinal system.

Gastrointestinal and hepatic reactions: anorexia, nausea, vomiting, gastralgia, abdominal cramps, diarrhea and tenesmus, transient elevation of SGOT.

CNS reactions: headache, dizziness, drowsiness, and insomnia. Skin reactions: rashes.

Dosage and Administration. *Children and Adults:* Antiminth Oral Suspension (50 mg. of pyrantel base/ml.) should be administered in a single dose of 11 mg. of pyrantel base per kg. of body weight (or 5 mg./lb.); maximum total dose 1 gram. This corresponds to a simplified dosage regimen of 1 cc. of Antiminth per 10 lb. of body weight. (One teaspoonful = 5 cc.)

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How Supplied. Antiminth is available as a pleasant tasting caramel-flavored suspension which contains the equivalent of 50 mg. pyrantel base per ml., supplied in 60 cc. bottles and Unitcups™ of 5 cc. in packages of 12.

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ORAL SUSPENSION

New Members

Mohammad Asghar, M.D., 2601 N. Whittier, St. Louis 63113, has become a member of St. Louis Medical Society. Dr. Asghar is a native of Pakistan, received his preliminary education at Government College and his M.D. degree at Nishtar Medical College in 1969. He is a resident in obstetrics and gynecology.

Ranjit M. Bagwe, M.D., 1301 Boonslick, St. Charles 63301, has become a member St. Charles-Lincoln County Medical Society. Dr. Bagwe is a native of India, received his preliminary education at Faculty of Science, M.S.U. of Baroda and his M.D. degree at Baroda Medical College in 1961. He specializes in internal medicine and cardiology.

Fred N. Beckman, M.D., Ellis Fischel State Cancer Hospital, Columbia 65201, has become a member of Boone County Medical Society. Dr. Beckman is a native of Brooklyn, N. Y., received his preliminary education at Cornell University and his M.D. degree at the University of Southern California in 1969. He specializes in pathology.

Parviz M. Behbahani, M.D., 1325 S. Grand, St. Louis 63104, has become a member of St. Louis

Medical Society. Dr. Behbahani is native of Iran, received his preliminary education at Pahlavi University and his M.D. degree at Pahlavi University in 1966. He specializes in anesthesiology.

Ronald C. Bilchik, M.D., 12809 Manchester, St. Louis 63131, has become a member of St. Louis County Medical Society. Dr. Bilchik is a native of Cleveland, Ohio, received his preliminary education at Toledo University and his M.D. degree at Washington University in 1967. He specializes in ophthalmology.

Joseph L. Bizek, M.D., 500-A Porter, Aurora 65605, has become a member of Ozarks Medical Society. Dr. Bizek is a native of Berwyn, Ill., received his preliminary education at the University of Illinois and his M.D. degree at the University of Illinois in 1969. He specializes in general surgery.

Juan O. Cardenas, M.D., 1125 Graham Rd., Florissant 63030, has become a member of St. Louis County Medical Society. Dr. Cardenas is a native of Ecuador, received his preliminary education at Central University and his M.D. degree at Central University in 1968. He specializes in internal medicine.

Granville E. Clark, M.D., 3718 Prospect, Kansas City 64128, has become a member of Jackson County Medical Society. Dr. Clark is a native of Cuba, received his preliminary education at Santiago de Cuba City College and his M.D. degree at the University of Havana, Cuba in 1954. He specializes in pediatrics.

Michael S. Clarke, M.D., 600 S. Glenstone, Springfield 65802, has become a member of Greene County Medical Society. Dr. Clarke is a native of Chicago, Ill., received his preliminary education at Northwestern University and his M.D. degree at the University of Missouri in 1969. He specializes in orthopedic surgery.

Jill M. Clayton, M.D., Missouri Baptist Hospital, Town and Country 63131, has become a member of St. Louis County Medical Society. Dr. Clayton received her M.D. degree at the University of Birmingham in 1955. She specializes in anesthesiology.

Jorge A. Covarrubias, M.D., 1949-304 Hunting Lake Ct., Kirkwood 63122, has become a member of St. Louis County Medical Society. Dr. Covarrubias is a native of Mexico City, received his preliminary education at Luz Bringas Foundation, Mexico City and his M.D. degree at the University of Mexico in 1969. He specializes in obstetrics and gynecology.

(Continued on page 40)

Symposium On

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BRIEF SUMMARY OF PRESCRIBING INFORMATION

***INDICATIONS.** Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows:

Effective: Management of nausea and vomiting and dizziness associated with motion sickness.

Possibly Effective: Management of vertigo associated with diseases affecting the vestibular system.

Final classification of the less than effective indications requires further investigation.

CONTRAINDICATIONS. Administration of Antivert (meclizine HCl) during pregnancy or to women who may become pregnant is contraindicated in view of the teratogenic effect of the drug in rats.

The administration of meclizine to pregnant rats during the 12-15 day of gestation has produced cleft palate in the offspring. Limited studies using doses of over 100 mg./kg./day in rabbits and 10 mg./kg./day in pigs and monkeys did not show cleft palate. Congeners of meclizine have caused cleft palate in species other than the rat.

Meclizine HCl is contraindicated in individuals who have shown a previous hypersensitivity to it.

WARNINGS. Since drowsiness may, on occasion, occur with use of this drug, patients should be warned of this possibility and cautioned against driving a car or operating dangerous machinery.

Usage in Children: Clinical studies establishing safety and effectiveness in children have not been done; therefore, usage is not recommended in the pediatric age group.

Usage in Pregnancy: See "Contraindications."

ADVERSE REACTIONS. Drowsiness, dry mouth and, on rare occasions, blurred vision have been reported.

More detailed professional information available on request.

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See facing page for brief summary of prescribing information.

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Indications: *Streptococcus pyogenes* (group A beta-hemolytic streptococci): Upper and lower respiratory-tract, skin, and soft-tissue infections of mild to moderate severity. Parenteral benzathine penicillin G is considered by the American Heart Association to be the drug of choice in the treatment and prevention of streptococcal pharyngitis and in long-term prophylaxis of rheumatic fever. When oral medication is necessary (because the parenteral route is contraindicated) or if there is known allergy to penicillin, the following recommendations made by the American Heart Association apply: 1) Oral penicillin G or V (where no allergy exists)—This is the drug of choice. Give for a minimum of 10 days; 2) Erythromycin—Give for a minimum of 10 days. A few strains of streptococci resistant to erythromycin have been reported.

Alpha-hemolytic streptococci (viridans group): Short-term prophylaxis against bacterial endocarditis prior to dental or other operative procedures in patients with a history of rheumatic fever or congenital heart disease who are hypersensitive to penicillin. (Erythromycin is not suitable prior to genitourinary surgery where the organisms likely to lead to bacteremia are gram-negative bacilli or the enterococcus group of streptococci.) *Staphylococcus aureus*: Acute infections of skin and soft tissue of mild to moderate severity. Resistance may develop during treatment.

Diplococcus pneumoniae: Upper respiratory-tract infections (e.g., otitis media, pharyngitis) and lower respiratory-tract infections (e.g., pneumonia) of mild to moderate degree.

Mycoplasma pneumoniae (Eaton agent, PPLO): In the treatment of primary atypical pneumonia, when due to this organism.

Treponema pallidum: Infections due to this organism.

Corynebacterium diphtheriae and *Corynebacterium minutissimum*: As an adjunct to antitoxin, to prevent establishment of carriers, and to eradicate the organism in carriers. In the treatment of erythrasma.

Entamoeba histolytica: In the treatment of intestinal amebiasis only. Extra-enteric amebiasis requires treatment with other agents. *Listeria monocytogenes*: Infections due to this organism.

Contraindication: Contraindicated in patients with known hypersensitivity to erythromycin.

Warning: Safety for use in pregnancy has not been established.

Precautions: Erythromycin is principally excreted by the liver. Caution should be exercised in administering the antibiotic to patients with impaired hepatic function. Surgical procedures should be performed when indicated.

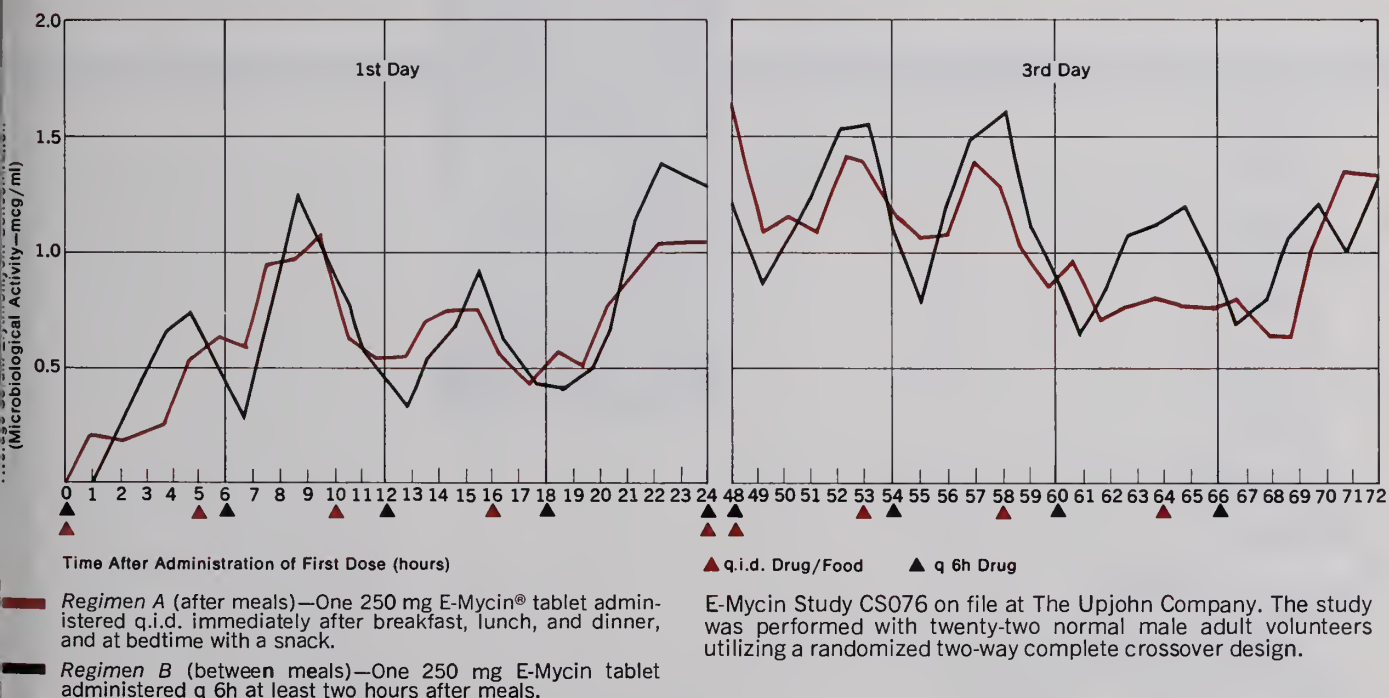
Adverse reactions: The most frequent side effects of erythromycin preparations are gastrointestinal, such as abdominal cramping and discomfort, and are dose-related. Nausea, vomiting, and diarrhea occur infrequently with usual oral doses. During prolonged or repeated therapy, there is a possibility of overgrowth of non-susceptible bacteria or fungi. If such infections occur, the drug should be discontinued and appropriate therapy instituted. Mild allergic reactions such as urticaria and other skin rashes have occurred. Serious allergic reactions, including anaphylaxis, have been reported.

Treatment of overdosage: The drug is virtually nontoxic, though some individuals may exhibit gastric intolerance to even therapeutic amounts. Allergic reactions associated with acute overdosage should be handled in the usual manner—that is, by the administration of adrenalin, corticosteroids, and antihistamines as indicated and the prompt elimination of unabsorbed drug, in addition to all needed supportive measures.

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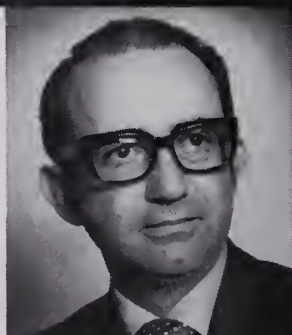
MED B-7-5

Should a specially prepared package insert be made available to patients?

Dr. Alexander M. Schmidt
Commissioner,
Food and Drug
Administration



Dr. James H. Sammons
Executive Vice President
of the American
Medical Association



The idea of a so-called patient package insert has been around for a long time. Many physicians already use written instruction sheets to provide patients with information about the drugs they are taking. And some physicians give verbal instructions; but in too many instances these are what I call eye-glazing exercises. I have seen patients sit with glazed eyes listening to a rapid-fire lecture by a hurried physician who has 20 people out in his waiting room. These patients aren't given sufficient understanding and therefore do not follow instructions. So I think the idea of an official package insert for patients is a good one. Perhaps we should really think of this kind of information simply as an extension of drug labeling.

The benefits of patient involvement

Many physicians may not realize how frequently a patient obtains his drug information from Aunt Tillie or the next door neighbor. And this information is almost always bad or irrelevant to the case at hand. Furthermore, the incentive to go along with a prescribed program is slim if the only reading matter the patient receives, along with his prescription, is a bill.

As an educator I am impressed by the principle that the best way to get someone to do something is to involve him in the process. So the

I think there are advantages as well as some real disadvantages in a patient package insert. When you begin to use semi-medical or medical terms to describe complications or possible sequelae of disease or treatment, you may frighten the patient—particularly since the more highly sophisticated patient is not the one who is going to read the insert. The patient who will read it is the one most susceptible to fright and confusion by the language.

On the positive side, a package insert will probably give the patient better insight into why he is being treated the way he is, and it may give the physician a little bit more time. But it does not remove from the physician the need or obligation to explain the insert.

Some pitfalls in the inclusion of side effects

Certainly a patient should be warned of the possibility of serious side reactions—to know what the real dangers are. But it doesn't do a bit of good to indicate that a patient on oral penicillin may develop a rash, itching, or a drop in blood pressure. Or that he may faint. I think the real danger is that frightened engendered by the insert may possibly outweigh the potential good.

ain purpose of drug information
r the patient is to get his coopera-
on in following a drug regimen.

Preparation and distribution of patient drug information

We would hope to amass information from physicians, medical societies, the pharmaceutical industry and centers of medical learning. The ultimate responsibility for uniform labeling must, however, rest with the Food and Drug Administration. There is nothing wrong with this agency saying, "this information is generally agreed upon and therefore it should be used," as long as our process for getting the information is sound.

Distribution of the information is a problem. In great measure it could depend on the medication in question. For example, in the case of an injectable long-acting progesterone, we would think it mandatory to issue two separate leaflets—a short one for the patient to read before getting the first shot and a long one to take home in order to make a decision about continuing therapy. In this case, the information might be put directly on the package and not removable at all. But for a medication like an antihistamine this information might be issued separately, thus giving the physician the option of distribution. This could reserve the placebo use, etc.

It is in the distribution of patient information that the pharmacist may get involved. As professionals and members of the health-care team and as a most important source of drug information to patients, pharmacists should be responsible for keeping medical and drug records on patients. It is also logical that they should distribute drug information to them.

Realistic problems must be considered

We have to expect that the introduction of an information device will also create new problems. First, how can we communicate complex and sophisticated information to people of widely divergent socioeconomic and ethnic groups? Second, what will we say? And third, how can we counteract the negative attitude of many physicians toward any outside influence or input? Hopefully the medical profession will respond by anticipating the problems and helping to solve them. Assuming we can also solve the difficulty of communicating information to diverse groups throughout the United States, our remaining task will be the inclusion of appropriate material.

What information is appropriate?

In my opinion, technical, chemical and such types of material should not be included. And there is

no point in the routine listing of side effects like nausea and vomiting which seem to apply to practically all drugs, unless it is common with the drug. However, serious side effects should be listed, as should information about a medication that is potentially risky for other reasons.

Other pertinent information might consist of drug interactions, the need for laboratory follow-up, and special storage requirements. What we want to include is information that will help increase patient compliance with the therapy.

Positive aspects of patient drug information

Labeling medication for the patient would accomplish a number of good things: the patient could be on the lookout for possible serious side effects; his compliance would increase through greater understanding; the physician would be a better source of information since he would be freer to use his time more effectively; other members of the health-care team would benefit through patient understanding and cooperation; and, finally, the physician-patient relationship would probably be enhanced by the greater understanding on the part of the patient of what the physician is doing for him.

only the doctor can remove that fear
y 20 or 30 minutes of conversation.

I'm not suggesting that we withhold any information from the patient because, first of all, it would be totally dishonest and secondly, it could defeat the very purpose of the insert. I do think that a patient on the birth control pill should know about the incidence of phlebothrombosis.

If you're going to tell a patient the incidence of serious adverse reactions, then you have to tell him that a concerned medical decision has been made to use a particular medication in his situation after careful consideration of the incidence of complications or side effects.

Emotionally unstable patients pose special problem

There are patients who, because of severe emotional problems, could not handle the information contained in a patient package insert. Yet if we are going to have a package insert at all, we just can't have two inserts. I think we might simply have to tell the families of these patients to remove the insert from the package.

Legal implications of the patient package insert

Just what effect would a pa-

tient package insert have on malpractice? We could try to avoid any legal implications by pointing out that the physician has selected a particular medication because, in his professional judgment, it is the treatment of choice. For instance, you can't tell everyone taking antihistamines not to work just because a few patients develop extreme drowsiness which can lead to accidents. And what about the very small incidence of aplastic anemia rarely associated with chloramphenicol? If, based on sensitivity studies and other criteria, we decide to employ this particular antibiotic, we do so in full knowledge of this serious potential side effect. It's not a simple problem.

How do we handle an insert for medication used for a placebo effect?

With rare exceptions, physicians no longer use medications for a placebo effect. This question does raise the issue of how a patient may react to receiving a medication without a package insert.

Preparation of the package insert

The development of the insert ought to be a joint operation between physicians, the pharmaceutical industry, the A.M.A. and the F.D.A.

I view the A.M.A.'s role as a coordinator or catalyst. It is the only organization through which the profession as a whole, irrespective of specialty, can speak. It has relatively instant access to all the medical expertise in this country. And it can bring that professional expertise together to ensure a better package insert. The A.M.A. can work in conjunction with the industry that has produced the product and which is ultimately going to supply the insert.

I don't think we should rely, or expect to rely, on legislative committees and their nonprofessional staffs to make these decisions when it is perfectly within the power of the two groups to resolve the issues in the very best American tradition—without the government forcing us to do it. I think the F.D.A. has to be involved, but I'd like them to become involved because they were asked to become involved.

Pharmaceutical
Manufacturers Association
1155 Fifteenth Street, N.W.
Washington, D.C. 20005



Jyoti S. Datta, M.D., Missouri State Chest Hospital, Mt. Vernon 65712, has become a member of Ozarks Medical Society. Dr. Datta is a native of India, received his preliminary education at D.A.V. College and his M.D. degree at Glancy Medical College in 1968. He specializes in pulmonary medicine and internal medicine.

Edwino J. DeCastro, M.D., Barnes Hospital Plaza, St. Louis 63110, has become a member of St. Louis Medical Society. Dr. DeCastro is a native of the Philippines, received his preliminary education at the University of Santo Tomas and his M.D. degree at the University of the East in 1968. He specializes in anesthesiology.

Sam C. DunLany, M.D., 1325 S. Grand, St. Louis 63104, has become a member of St. Louis Medical Society. Dr. DunLany is a native of Pennsylvania, received his preliminary education at Brescia College and his M.D. degree at the University of Louisville in 1973. He specializes in internal medicine.

Edward P. Feutz, M.D., 917 S. Brentwood, St. Louis 63105, has become a member of St. Louis County Medical Society. Dr. Feutz is a native of Danville, Ill., received his preliminary education at the University of Illinois and his M.D. degree at Indiana University in 1970. He specializes in diagnostic radiology.

Francisco J. Garriga, M.D., 4570 Audubon, St. Louis 63110, has become a member of St. Louis Medical Society. Dr. Garriga is a native of Puerto Rico, received his preliminary education at the University of Puerto Rico and his M.D. degree at Washington University in 1970. He specializes in rheumatology-internal medicine.

Robert T. Gibbons, Jr., M.D., 4400 Wornall Rd., Kansas City 64111, has become a member of Jackson County Medical Society. Dr. Gibbons is a native of Kansas City, received his preliminary education at Rockhurst College and his M.D. degree at the University of Kansas in 1968. He specializes in anesthesiology.

Gary Gray, M.D., 911 S. Brentwood, St. Louis 63105, has become a member of St. Louis County Medical Society. Dr. Gray is a native of St. Louis, received his preliminary education at Washington University and his M.D. degree at the University of Missouri in 1972. He specializes in internal medicine.

William J. Holt, M.D., 2023 Alfred, St. Louis 63110, has become a member of St. Louis Medical

Society. Dr. Holt is a native of Pennsylvania, received his preliminary education at Swarthmore College and his M.D. degree at St. Louis University in 1974. He specializes in surgery.

Eddie C. Inocencio, M.D., 902 Edmond, St. Joseph 64501, has become a member of Buchanan County Medical Society. Dr. Inocencio is a native of the Philippines, received his preliminary education at Central Philippine University and his M.D. degree at the University of Santo Tomas in 1963. He specializes in otorhinolaryngology.

Yong Won Kim, M.D., 825 Good Hope St., Cape Girardeau 63701, has become a member of Cape Girardeau County Medical Society. Dr. Kim is a native of Korea, received his preliminary education at Yonsei University and his M.D. degree at Yonsei University in 1963. He specializes in psychiatry.

Hanumanthu V. Kumar, M.D., 7551 Genesta, St. Louis 63123, has become a member of St. Louis Medical Society. Dr. Kumar is a native of India, received his preliminary education at Kirorimal College and his M.D. degree at Maulana Azad Medical College in 1964. He specializes in ophthalmology.

Michael M. McGongigle, M.D., 2700 McClelland Blvd., Joplin 64801, has become a member of Jasper County Medical Society. Dr. McGongigle is a native of Lake Charles, La., received his preliminary education at the University of Santa Clara and his M.D. degree at the University of New Mexico in 1968. He specializes in otolaryngology.

Hish S. Majzoub, M.D., 2700 McClelland, Joplin 64801, has become a member of Jasper County Medical Society. Dr. Majzoub is a native of Beirut, Lebanon, received his preliminary education at American University of Beirut and his M.D. degree at American University of Beirut in 1960. He specializes in neurological surgery.

Philip L. Martin, M.D., Crestwood Medical Park, Crestwood 63126, has become a member of St. Louis County Medical Society. Dr. Martin is a native of Bryan, Tex., received his preliminary education at St. Louis University and his M.D. degree at St. Louis University in 1968. He specializes in otolaryngology.

Wayne L. Morton, M.D., Tri-County Clinic, Inc., Osceola 64776, has become a member of West Central Missouri Medical Society. Dr. Morton is a native of Pawnee City, Neb., received his preliminary education at the University of Nebraska and his M.D. degree at the University of Nebraska in 1972. He is in family practice.

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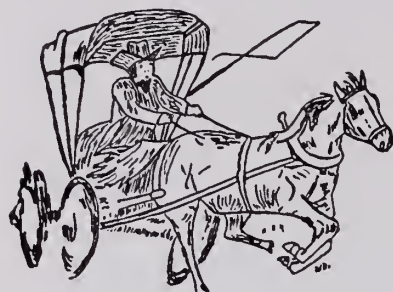
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Missouri Medicine in Review



FORTY YEARS AGO

Ye Ed expresses appreciation to the librarians at the University of Missouri-Kansas City Medical Library for making available the reference Journals needed to prepare this column.

The annual meeting of the MSMA Council convened in St. Louis on Nov. 19, 1935 with 51 members and guests present. Dr. A. R. McComas of Sturgeon, Chairman, presided. Addresses were presented by the Rev. Alphonse M. Schwitalla, S.J., dean of St. Louis University School of Medicine; Dr. Walter L. Bierring, Des Moines, Past-President of the American Medical Association; and Dr. J. T. Mason, Portland, President-Elect of the American Medical Association.

Dr. T. W. Adair, Archie, was honored upon the completion of his 50th year in practice by the Cass County Medical Society at a meeting on December 12.

The Jasper County Medical Society was called to order by the President, Dr. W. S. Loveland of Joplin, with 27 members present. The following officers were elected to serve during 1936: President, Dr. O. T. Blanke, Joplin; Vice-President, Dr. Paul Walker, Joplin; Secretary, Dr. J. W. Hardy, Joplin; and Treasurer, Dr. H. D. McGaughey, Joplin.

TWENTY-FIVE YEARS AGO

The membership dues of the American Medical Association for 1951 were set as \$25 by the House of Delegates at the June, 1950 session. At the same time, it was provided that the payment of membership dues will entitle the member to receive *The Journal of the AMA*. The *Journal* was secured in the past by individual subscriptions or by fellowship in the Scientific Assembly with a charge of \$12 annually. Beginning in January, 1951, Fellow-

ship dues will be \$5. Fellows will be entitled to select one of the specialty journals, such as the *Archives of Ophthalmology*, rather the *Journal of the AMA*. Should more than one publication be desired, it is still necessary to subscribe directly.

Richard E. Johnson, M.D. of Columbia; Eugene M. Bricker, M.D. of St. Louis and Edwin C. Ernst, M.D. of St. Louis were speakers at a meeting of the consulting staff of the Ellis Fischel State Cancer Hospital on December 3. Dr. Johnson spoke on "Effect of Treatment in Carcinoma of the Breast."

TEN YEARS AGO

Paul R. Whitener, M.D., President of the Missouri State Medical Association, says, "There is an adage which says something to the effect that 'you get what you pay for.' Right now as a member of the MSMA, you are paying annual dues of \$42.50. According to the latest AMA figures, members of at least 40 other state associations are paying higher dues and as much as \$120 in one state! From what I have seen and heard during my term as MSMA President, it appears that the associations with the higher financial support are the ones which are providing the most valuable services, leadership and guidance for their physician-members."

The Missouri State Medical Association has pledged its cooperation with government agencies in implementing PL 89-97 ("medicare") but, at the same time, has made it clear that the Association will work to change and improve those provisions of the new law which are found to be objectionable. A policy statement relating to PL 89-97 was approved by the MSMA Council at its meeting on December 11-12. When President Johnson signed the "Medicare" bill, it became the most costly and, according to one senator, the "most significant" social welfare plan ever adopted in this country. There can be little doubt on either point. The cost will be \$6.5 billion for the first year covering 90% of the health needs of 19 million senior citizens.

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Precautions: In the elderly and debilitated, and in children over six, limit to smallest effective dosage (initially 10 mg or less per day) to preclude ataxia or oversedation, increasing gradually as needed and tolerated. Not recommended in children under six. Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider individual pharmacologic effects, particularly in use of potentiating drugs such as MAO inhibitors and phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions (e.g., excitement, stimulation and acute rage) have been reported in psychiatric patients and hyperactive aggressive children. Employ usual precautions in treatment of anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation have been reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship has not been established clinically.

Adverse Reactions: Drowsiness, ataxia and confusion may occur, especially in the elderly and debilitated. These are reversible in most instances by proper dosage adjustment, but are also occasionally observed at the lower dosage ranges. In a few instances syncope has been reported. Also encountered are isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent and generally controlled with dosage reduction; changes in EEG patterns (low-voltage fast activity) may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice and hepatic dysfunction have been reported occasionally, making periodic blood counts and liver function tests advisable during protracted therapy.

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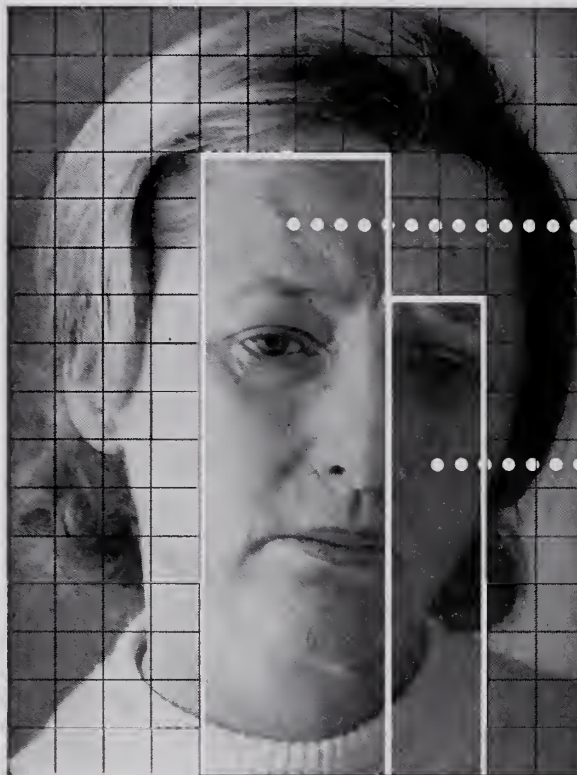
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118th MSMA Annual Session

April 1-4, 1976, Kansas City

Both after



Predominant
psychoneurotic
anxiety

Associated
depressive
symptoms

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neuron disorders, athetosis, stiff-man syndrome, convulsive disorders (not for sole therapy).

Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma; may be used in patients with open angle glaucoma who are receiving appropriate therapy.

Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive dis-

orders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard convulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms (similar to those with barbiturates and alcohol) have occurred following abrupt discontinuation (convulsions, tremor, abdominal and muscle cramps, vomiting and sweating). Use with caution in alcoholics and alcohol addiction-prone individuals under

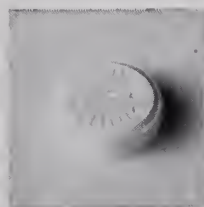
respond to one

According to her major symptoms, she is a psychoneurotic patient with severe anxiety. But according to the description she gives of her feelings, part of the problem may sound like depression. This is because her problem, though primarily one of excessive anxiety, is often accompanied by depressive symptoms. Valium (diazepam) provides relief for both—as excessive anxiety is relieved, the depressive symptoms associated with it are also relieved.

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in psychoneurotic
anxiety states
with associated
depressive symptoms

ance because of their predisposition to habituation and dependence. In pregnancy, lactation or women of childbearing age, weigh potential benefit against possible hazard.

Precautions: If combined with other psychotropic or anticonvulsants, consider the pharmacology of agents employed; drugs such as phenothiazines, barbiturates, MAO inhibitors, and other antidepressants may potentiate Valium. Usual precautions indicated in severely depressed, or with latent suicidal, or with suicidal tendencies.

Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle

spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.



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Missouri Medicine

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MSMA



NEWS ROUND - UP

February, 1976



Malpractice Hearings

Over 250 MSMA members and their wives traveled to Jefferson City on Jan. 13 to attend the Senate Committee on Public Health's hearing on three malpractice insurance bills. (See photo above)

R. Allen Chandler, M.D., President of the MSMA, (right) told the Committee that the malpractice crisis "is not a physician's problem, or a lawyer's problem, but a consumer's problem."

To date, the Senate has heard three malpractice bills and the House five malpractice measures. Further information is contained in the Legislative Report on the following page.



Malpractice insurance bills clear first Senate hurdle

The current General Assembly has been in Session only three weeks — but it has been a long three weeks.

The Legislative Committee has tagged 73 House bills and 31 Senate bills to be followed to varying degrees this Session. Of these, the MSMA has presented testimony on 17 bills and attended hearings on 9 others.

In a short Session, this one will adjourn April 30, it is vitally important to have bills heard as soon as possible and placed on the calendars. We have been fortunate in this area since the three Special Senate Committee malpractice bills have been reported **Do Pass** and the five House bills which emanated from the Governor's Task Force have been heard and should be reported out soon.

The hearings on both the Senate and House malpractice legislation drew large crowds of physicians, primarily from the metropolitan areas. We had fine input from a wide variety of physicians and the "numbers game" seemed to genuinely impress the Legislators.

A brief wrap-up of MSMA legislative activities to date follows.

The three Senate bills, SB 470, 471 and 472 have been reported **Do Pass** and are awaiting full Senate action. A committee amendment on SB 470 says that if a physician "negligently permits any foreign object to remain within the body" the person has two years from the date of discovery to take action. An amendment to SB 471 eliminates the clause that would have had the defendant pay a penalty if he took a suit to court and lost after the review panel stated that he had no case. The new wording would allow admissibility of the review panel's decision.

The House malpractice bills, HB 1307 (Ad Damnum Clause), HB 1308 (Reporting of Claims), HB 1309 (J.U.A.), HB 1312 (Collateral Sources) and HB 1447 (Limiting Contingent Fees), received favorable response from the committee. The committee is still looking at HB 1306 dealing with Informed Consent, but this bill could also be reported out soon.

Some of the other bills the MSMA has appeared in favor of are HB 1054 (Physicians Assistants), HB 1100 (Aid to Medical Students) and SB 781 (Use of Patients and Inmates for Human Experimentation).

The Physicians Assistants bill is still in committee and a subcommittee is expected to be named to further

study this subject. The Student Aid bill can be expected to have a tough time since any bill carrying a fiscal note is being looked at closely. The Human Experimentation bill is still in Committee.

We have actively opposed only one bill so far this Session — HB 975, the Acupuncture bill. We had fine and apparently effective testimony from Dr. Ulett to counteract the dramatic testimony of the chiropractors. This bill passed the House last year, but if we are fortunate and continue to work with committee members, this bill may not progress as far this Session.

Another bill we would have opposed, HB 1407, which would have made the physician responsible for filing death certificates, was scheduled for a hearing last week. However, after discussions with various funeral directors, we were informed that the bill will not be pushed.

SB 667, the bill defining the practice of podiatry, was amended and recommended **Do Pass** by the Committee. The amendments would prohibit podiatrists from working on infants under one year of age.

Some bills which have surfaced since our last report. These include:

HB 1510, which would reduce the penalty for possession of small amounts of marijuana.

HB 1680, which is a late bill to substitute for the bill which would have placed a lay member on the Board of Healing Arts. HB 1680 would allow any person to file a complaint with the Administrative Hearing Commission against anyone licensed by the state. Currently, the complaint must go to the Licensing Boards and, if they find cause, the Board takes the complaint to the Hearing Commission.

HB 1406, which is a substitute proposal worked out by the Division of Health, funeral directors and the MSMA dealing with the transportation of bodies.

SB 670, which would define death as occurring when a physician opines that the victim has experienced an "irreversible cessation of spontaneous respiratory and circulatory functions" or an "irreversible cessation of spontaneous brain functions."

SB 756, which would establish requirements for registration and certification of drug and alcohol treatment facilities.

SB 829, which would remove the requirement that the Director of the Division of Mental Health be a physician.

118th Annual Session format taking shape

The malpractice insurance situation is expected to headline the 118th Annual Session of the Missouri State Medical Association, April 1-4, 1976, at the Crown Center Hotel in Kansas City.

However, many other features are on tap which promise to make the Convention one of the biggest in the history of the Association. Preliminary Programs and hotel reservation cards will be mailed to members in the next two weeks. Members are urged to make hotel reservations early.

Dr. Max H. Parrott, President of the AMA, will be a featured speaker at the Convention along with U.S. Rep. Paul Rogers, Chairman of the influential Subcommittee on Health and Environment of the House Inter-

state and Foreign Commerce Committee.

In addition, Mrs. Erle E. Wilkinson, Nashville, Tenn., President of the Auxiliary to the AMA, will address the MSMA Auxiliary. For the first time, the MSMA Auxiliary will sponsor programs for doctors wives who are not Auxiliary members.

Entertainment for the Annual Banquet will be the "Sweet Adelines" of St. Joseph. Tickets for the Banquet and for other activities will be available at the Registration Desk at the Crown Center.

Other special sessions on the agenda include a Practice Management Workshop on Thursday, April 1, and a "Discuss the Issues" meeting with Missouri's Delegates to the AMA at 9 a.m., Saturday, April 3.

Unified FMG policy approved by AMA

A giant step toward a unified policy on foreign medical graduates (FMGs) was taken at the AMA Clinical Session with adoption of a Coordinating Council on Medical Education statement on the subject by the AMA House of Delegates.

The report essentially recommends parity of treatment for FMGs and graduates of U.S. medical schools, while recommending that this country not rely on FMGs to solve its manpower distribution problems.

An important part of the report — from the AMA's viewpoint — recommends that all medical school graduates, whether foreign or U.S., have two years of approved graduate training before they can be eligible for full state licensure.

The report further recommends that national control and accreditation of graduate medical education programs should be in the hands of the coordinating council and the Liaison Committee on Graduate Medical Education (LCGME).

The AMA approval of the document is the final step in more than two years of work in drawing up and approving a policy acceptable to all five constituents of the coordinating council: the AMA, the American Hospital Assn., the Assn. of American Medical Colleges, the Council of Medical Specialty Societies, and the American Board of Medical Specialties.

Several FMG speakers before the reference committee praised the report, and newly elected Interns and Residents Business Session Vice-Chairman Mohammed Akhter, MD, called it "the most excellent report on the subject I've seen yet."

The report further recommends tighter control over "exchange visitor" programs, limiting licensure of FMGs taking part in such programs to medical practice only in academic institutions, and restricting exchange visitor physician training to special programs, different from those available to FMGs seeking permanent immigrant status.

The purpose of these controls is to reduce the influx of FMGs who enter the U.S. on exchange visitor visas and remain indefinitely, later attempting to achieve permanent immigrant status.

Use Tax opinion issued

The following letter was received by the MSMA from the Missouri Department of Revenue. If you believe you would be affected by this law, please have your auditor check with the Department of Revenue.

"It has come to our attention that a number of out-of-state mail order houses are selling to dentists, physicians, and laboratories and are not collecting the Missouri Sales or Use Tax. Some of these businesses are apparently advertising also that the purchaser will save sales or use tax by buying from them.

"I would appreciate your informing your members that they are subject to consumer's use tax on all purchases from out-of-state vendors who are not registered with Missouri and do not collect vendor's use tax. This is in accordance with Section 144.655.4 RSMo. 1969, and supplement thereto. If your members are subject to the use tax, they must register with the Sales Tax Bureau and submit returns.

"Information regarding registration can be obtained by contacting the Records and Registration Section, Sales Tax Bureau, P.O. Box 840, Jefferson City, Mo. 65101."

Malpractice survey returns 'slowing'

Only 1,800 MSMA members have returned their medical professional liability insurance questionnaires, which were mailed to all 4,800 members of the Association in late December.

The purpose of the questionnaire is to determine the feasibility of the Association forming a mutual assessment malpractice insurance company. It is vitally important that all members return the completed survey so that meaningful statistics can be gathered and a factual determination made.

A preliminary actuarial study revealed that formation of a mutual company would require at least 50% participation of all MSMA members and capitalization of about \$4 million.

If you have not received, or have misplaced, your copy of the questionnaire, please contact MSMA Headquarters for another copy.

SSA-1122 review period extensions are reduced

The Proposal Evaluation Committee of the Governor's Advisory Council for Comprehensive Health Planning has adopted a policy concerning a limitation of the extensions of the review period that can be granted for SSA-1122 proposals.

The review period for a project submitted under the SSA-1122 review program is for a maximum of 90 days unless the applicant concurs with an extension beyond that length of time. The new limit will be for 90 additional days beyond the original 90 days. The program will still be operated with a regular review period of 60 days with a 30-day extension possible at the request of the applicant, local health planning organization, or the Designated Planning Agency. This provides for a total usual review period of 90 days. Beyond that, there may be only one additional 90-day extension which can be granted on the applicant's request with the concurrence of the local health planning agency and the DPA. With this policy, all decisions on SSA-1122 proposals, except those withdrawn from the review process, would have to be made by the 180th day of the review period.

This policy has become necessary because a number of applicants have requested extensions of the review period for up to a year. Extensions such as this delay provisions of needed services. In addition, data submitted as part of an application, particularly manpower and financial information, tends to lose its relevance and accuracy during such a long period of time, stated the committee.

Medical-Legal meeting set

A conjoint meeting of the Medical-Legal Committees of the Missouri Bar Association, Missouri Association of Osteopathic Physicians and Surgeons and the Missouri State Medical Association will be held at 9:30 a.m., Saturday, Feb. 21, at the Columbia Inn, Columbia, Missouri.

Practice Management Workshop

Please send additional information on the Practice Management Workshop, April 1, 1976, at the Crown Center Hotel, Kansas City, to:

Name _____

Address _____

City _____

Several members sign up for Management Workshop

Several MSMA members have signed up for the Practice Management Workshop designed principally for the established physician, planned in conjunction with the 1976 Annual Session of the Missouri State Medical Association.

Limited to 50 physician participants, the program will be presented by the Practice Management Division of the A.M.A. Registration for the program is \$50 and will include a compact binder which details the areas covered by the various speakers.

The Workshop will be held Thursday, April 1, 1976, at the Crown Center Hotel in Kansas City. The program begins at 8 a.m. and will conclude about 3:30 p.m. so that participants can attend the House of Delegates Reference Committees.

Some of the subjects to be covered at the Workshop include:

1. Patient Information Booklet
2. Personnel, Administration
3. Task Analysis and Delegation
4. The Telephone
5. Physician/Patient Encounter Form, Uniform Claim Form
6. Physical Aspects of Office
7. Appointment Scheduling
8. Paperwork, Filing, Dictation
9. Fee Collections

For further information on the Workshop, please clip the box above and mail it to MSMA, Box 1028, Jefferson City, Mo. 65101. If you wish to enroll at this time, please include a check for \$50.

Resolution deadline is Feb. 13

MSMA members, County Medical Societies and Student Delegates desiring to introduce resolutions at the 1976 Annual Session of the Missouri State Medical Association are reminded that February 13 is the deadline for insertion of resolutions in the Delegates' Handbook.

Any resolutions to be introduced after that time must be made available to the House 24 hours before the session in which it is to be introduced and at least 200 copies of the resolution, or funding for same, must be submitted by the sponsor.

The same MSMA Bylaw procedure applies for the Second Session, but introduction requires two-thirds approval. Unanimous approval is needed for introduction at the Final Session.

Dr. Finnegan appointed Missouri Medicine editor

The Council of the Missouri State Medical Association faced a relatively short agenda at the January meeting, but took several actions.

Dr. Joseph Finnegan, St. Louis, was re-appointed Editor of MISSOURI MEDICINE by a unanimous vote. Dr. Finnegan has been Editor for the past 12 years.

The Council voted to write St. Louis Blue Shield regarding a letter Blue Shield sent to all participating physicians. The letter stated that Blue Shield was experiencing a large influx of claims at the current time and that payment to physicians might be slower than normal. Since the letter asked individual physicians not to respond, the Council felt that the Association should seek more information on the problem.

The Council also voted to send a resolution to the AMA and the New York Medical Association which expressed the MSMA's opposition to H.E.W.'s proposed use of Social Security numbers as a national identifier.

The Council accepted a report of the Commission on Medical Economics which included:

1. A proposal to investigate whether physicians could be reimbursed to their usual fee if a Medicaid patient also has private insurance.

2. A Doctor-Patient Confidentiality statement and a request that an ad hoc committee be established to study the problem of confidentiality.

3. A motion that the MSMA membership be advised that according to recent notice the CHAMPUS program has changed from a UCR plan to one that will reimburse at the 75th percentile based on 1974 prevailing charges.

4. A request that all MSMA members be advised that there is a "third option" to forming PSRO's. That option provides that if a staff committee of physicians of a hospital, etc., has not been established to carry out all the utilization review functions prescribed, a group or committee may be sponsored and organized by the Secretary of H.E.W. to perform the review functions.

What was that again?

It's interesting to note information included in a pamphlet furnished by Dr. Rae W. Froelich of Lebanon. The pamphlet was published in 1937 by the U. S. Social Security Board to explain to workers exactly what taxes they would have to pay for the retirement program.

To quote:

"Beginning January 1, 1937, you will pay 1 cent for each dollar you earn, matched by your employer, up to \$3,000 a year.

"Beginning in 1940, you and your employer will pay 1-1/2 cents on each dollar you earn up to \$3,000."

In three-year periods, the percentage was to increase to 2-1/2 cents on each dollar earned up to \$3,000 until 1949. To quote again:

"Beginning in 1949, you and your employer will each pay 3 cents on each dollar you earn up to \$3,000 a year. That is the most you will ever pay."

Editor's Note

(Employees and their employers are currently paying 5.85 cents on each dollar earned up to \$15,300 a year.)

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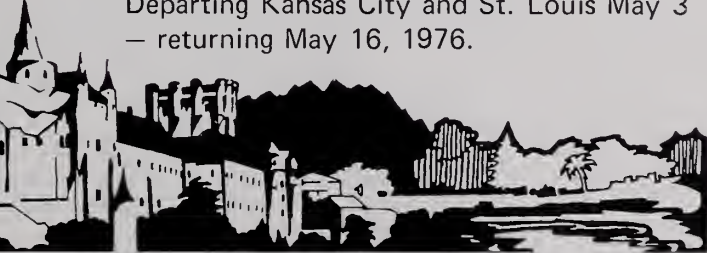


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Preliminary Program
118th Annual Session

MISSOURI STATE MEDICAL ASSOCIATION

Crown Center Hotel, Kansas City

April 1-4, 1976

Thursday, April 1

- 8:30 AM-3:30 PM A *Practice Management Workshop* designed for the established physician will be conducted by business specialists from the AMA. Registration is \$50. Please see article in the *News Roundup* section.
- 11:00 AM Registration of Delegates, Century Foyer.
- 1:30 PM *House of Delegates Meeting*, Opening Session. Century Room.
- 3:00 PM Reference Committee Meetings.
- 6:30 PM Missouri State Surgical Society Executive Council Meeting and Dinner. Senators Board Room.

Friday, April 2

- 8:00 AM Registration, Century Foyer.
- 8:00 AM Missouri University Alumni Board of Governors Breakfast Meeting. Ambassadors Board Room.
- 9:00 AM General Session—*Current Issues Confronting the Physician Across the Nation*. Century Room.
- Introduction: R. Allen Chandler, M.D., Kansas City, MSMA President.
- Speakers: Max H. Parrott, M.D., Portland, Ore., President, American Medical Association.
- The Honorable Paul Rogers (Florida), Member, U. S. House of Representatives.
- 10:30 AM Intermission to View Exhibits.
- 10:30 AM Presiding: Stanley J. Goldman, M.D., Kansas City, President, Missouri State Allergy Association. Centennial Room "B."
- Participants:
- Histamine Modulation of Lymphocyte Function—Relation to Clinical Disease*, Henry E. Jones, M.D., Ann Arbor, Mich., Assistant Professor of Dermatology, University of Michigan Medical Center.
- Pentapeptide Inhibition of Skin Test Reaction in Clinical Allergy*, Robert Dockhorn, M.D., Kansas City.
- Skin Manifestations of Food Hypersensitivity*, James W. Willoughby, M.D., Kansas City.
- Aeroallergens*, William R. Solomon, M.D., Ann Arbor, Mich., Section of Allergy, Department of Internal Medicine, University of Michigan Medical Center.
- Sponsored by the Missouri State Allergy Association.
- *11:00 AM Program to Be Sponsored by the American Cancer Society, Missouri Division, Inc.
- *11:00 AM *Recent Developments in Drug Usage*. Mission Room.
- Moderator: Jack Barrow, M.D., St. Louis.
- Speaker: Daniel L. Azarnoff, M.D., Professor of Medicine and Pharmacology, University of Kansas Medical Center, College of Health Sciences and Hospital, Kansas City, Kan.
- Sponsored by Missouri Society of Internal Medicine and the American College of Physicians (Missouri Region).
- *11:00 AM *Adolescent Medicine*. Penn Valley Room.
- Moderator: Robert C. Fairchild, M.D., Kansas City.
- Participants:
- Adolescent-Parent Interactions*, Clark W. Seely, M.D., Kansas City.
- The Deviant Adolescent*, Sidney F. Pakula, M.D., Kansas City.
- Panel on Adolescent Gynecology*, Katherine W. Smith, M.D., and Gerald L. Miller, M.D., Kansas City.
- Sponsored by the Missouri Chapter, American Academy of Pediatrics.
- *11:00 AM *Cerebral Vascular Insufficiency*. Shawnee Room.
- Moderator: Donald Silver, M.D., Columbia.
- Participants:
- Extracranial Manifestation and Management*, Donald Silver, M.D., Professor and Chairman of Surgery, University of Missouri-Columbia School of Medicine.
- Intracranial Manifestation and Management*, Clark Watts, M.D., Professor of Neurosurgery, University of Missouri-Columbia School of Medicine.
- Sponsored by the Missouri State Surgical Society.

* Concurrent Sessions.

- *11:00 AM *Charles A. Brasher, M.D. Lectureship.* Sponsored by the American Lung Association of Missouri and the Missouri Thoracic Society.
- 12:30 PM Missouri University Medical Alumni Luncheon. Century Room.
- 12:30 PM Missouri State Allergy Association Luncheon, Annual Business Meeting and Election of Officers (Members only). Liberty Room.
- 12:30 PM Missouri Thoracic Society Luncheon and Business Meeting. Presidents Room.
- * 2:00 PM Presiding: Robert E. Bolinske, M.D., St. Louis, President-Elect, Missouri State Allergy Association. Centennial Room "B."
- Participants:
- Immunity in the Atopic Patient—Protection Against Infection, Fungi and Bacteria*, Henry E. Jones, M.D., Ann Arbor, Mich.
- Sympathomimetics*, 1976, Phillip E. Korenblat, M.D., St. Louis.
- Allergic Modification of Nasal Physiology*, William R. Solomon, M.D., Ann Arbor, Mich.
- Acute Anaphylactic Shock Simulating an Acute Myocardial Infarction*, Harry C. Wall, M.D., Kansas City.
- Malignant Melanoma Immunologically Treated with Dinitrochlorobenzene*, Leonard D. Grayson, M.D., Quincy, Ill.
- Sponsored by the Missouri State Allergy Association.
- * 2:00 PM *Endoscopy and Other New Diagnostic Techniques for Upper and Lower GI Tract.* Mission Room.
- Moderator: William D. Hoadley, M.D., Kansas City.
- Participants:
- Use of the Flexible Colonoscope in Study and Treatment of Lesions of the Colon*, Burnell "Tony" Landers, M.D., Assistant Clinical Professor of Medicine, University of Missouri-Kansas City School of Medicine.
- Investigation and Diagnosis of Upper Gastrointestinal Tract by Fibre-Optic Endoscopy*, Michael S. Fedotin, M.D., Assistant Professor of Medicine, University of Kansas School of Medicine, Kansas City, Kan.
- Sponsored by the Missouri Society of Internal Medicine and the American College of Physicians (Missouri Region).
- * 2:00 PM *The Natural History of Breast Carcinoma: Relevance to Recent Trends in Diagnosis and Treatment.* Roanoke Room.
- Moderator: C. T. Dolan, M.D., N. Kansas City.
- Speaker: Walter C. Bauer, M.D., Professor of Surgical Pathology and Pathology, Washington University, St. Louis.
- Sponsored by the Missouri Society of Pathologists.
- * 2:00 PM *Drug Treatment in the Psychogeriatric Patient.* Westport Room.
- Speaker: Carl Eisdorfer, M.D., Ph.D., Professor of Psychiatry, University of Washington, Seattle, Wash. (Sponsored by Pfizer.)
- Moderator: James Young, M.D., Kansas City.
- Sponsored by the Missouri Psychiatric Association.
- * 2:00 PM *Symposium on Sports Medicine.* Shawnee Room.
- Moderator: George A. Hill, III, M.D., St. Louis.
- Panel Participants:
- Safe Progressive Exercise for the Non-athlete*, John Cooksey, M.D., Assistant Professor of Medicine and Preventive Medicine, Washington University School of Medicine, St. Louis.
- Cardio-Pulmonary Effects of Competitive Sports*, Richard Martin, M.D., Professor of Medicine and Director of Cardiology, University of Missouri-Columbia, School of Medicine.
- Physiologic Casualties at High Altitude*, Ben Eisenman, M.D., Professor of Medicine, University of Colorado School of Medicine, Denver, Colo.
- Cranial-Cervical Injuries in Athletes*, Frederick E. Jackson, M.D., Neurological Surgery, Fall Brook, Calif.
- Prevention and Management of Knee Injuries in Athletes*, Howard J. Ellfeldt, M.D., Orthopedic Surgery, Orthopedic Surgeon for the Kansas City Chiefs, Research Hospital and Medical Center, Kansas City.
- Sponsored by the Missouri State Surgical Society.
- 3:30 PM Intermission to View Exhibits.
- 3:30 PM Missouri State Medical Foundation Board of Directors Annual Meeting. Century Room.
- 4:00 PM *House of Delegates*, Second Session. Century Room.
- 5:30 PM Missouri State Allergy Association Cocktail Party for members and guests. Independence Room.
- 6:00 PM Reference Committee Meetings.
- 6:30 PM Missouri Society of Pathologists Dinner. Presidents Room.

- 6:30 PM Missouri Psychiatric Association Cocktails (Penn Valley Room) and Dinner (Roanoke Room).
 6:30 PM Missouri State Surgical Society Cocktails (Shawnee Room) and Dinner (Mission Room).

Saturday, April 3

- 8:00 AM Registration, Century Foyer.
- ° 9:00 AM Fundamentals of Acid-Base Therapy and Practice. Westport Room.
 Moderator: Donald E. McIntosh, M.D., Kansas City.
 Speaker: Walter C. Bernards, M.D., Staff Anesthesiologist, St. Vincent's Hospital, Portland, Ore.
 Sponsored by the Missouri Society of Anesthesiologists.
- ° 9:00 AM *Hypertension 1976*. Roanoke Room.
 Moderator: Jack S. Sanders, M.D., Jefferson City.
 Speakers: Walter M. Kirkendall, M.D., Houston, Tex. (Sponsored by Ciba Pharmaceutical Co.)
 Mitchell Perry, M.D., St. Louis.
 David Goldring, M.D., St. Louis.
 Sponsored by the Missouri Heart Association, Inc.
- ° 9:00 AM *New Concepts in Pregnancy Care*. Mission Room.
 Moderator: H. Kermit Knoch, M.D., Kansas City.
 Participants:
 Jack M. Schneider, M.D., Chairman, Department of OB-GYN, Texas Technical Medical School, Lubbock, Tex.
 Albert B. Gerbie, M.D., Professor, Obstetrics & Gynecology, Northwestern University, Chicago, Ill.
 Sponsored by the American College of Obstetricians and Gynecologists.
- ° 9:00 AM *Hypotropia in Children and New Surgical Techniques in Strabismus*. Centennial Room "B."
 Speaker: William E. Scott, M.D., Associate Professor of Ophthalmology and Director of Pediatric Ophthalmology, University Hospital, Iowa City, Ia.
 Panel Participants:
 Sponsored by the Missouri Ophthalmological Society
- ° 9:00 AM *Controversial Surgical Problems*. Shawnee Room.
 Moderator: Paul G. Koontz, Jr., M.D., Kansas City.
 Participants: Surgical Staff of St. Luke's Hospital, Kansas City.
 Sponsored by the Missouri State Surgical Society.
- ° 9:00 AM *Discuss the Issues with Your AMA Delegates*. Presidents Room.
 (Missouri's AMA Delegates and Alternates will be available for an open forum type discussion.)
- 10:30 AM Intermission to View Exhibits.
- ° 11:00 AM *Potpourri of Anesthesia Pearls*. Westport Room.
 Moderator: George P. Hoech, Jr., M.D., Kansas City.
 Speaker: Archibald O. Tetzlaff, M.D., Staff Anesthesiologist, Providence-St. Margaret's Health Center, Kansas City, Kan.
 Sponsored by the Missouri Society of Anesthesiologists.
- ° 11:00 AM *Modern Treatment of Fungal Infections*. Penn Valley Room.
 Moderator: Larry E. Millikan, M.D., Columbia.
 Speaker: Henry E. Jones, M.D., Assistant Professor of Dermatology, University of Michigan Medical Center, Ann Arbor, Mich.
 Sponsored by the Missouri Dermatological Society.
- ° 11:00 AM *Current Status of High Risk Maternal and Infant Care in Missouri*. Mission Room.
 Moderator: Harry Jonas, M.D., Kansas City.
 Panel Participants:
 Elizabeth James, M.D., Columbia.
 Ned Smull, M.D., Kansas City.
 Albert B. Gerbie, M.D., Chicago, Ill.
 Jack M. Schneider, M.D., Lubbock, Tex.
 Sponsored by the American College of Obstetricians and Gynecologists.
- ° 11:00 AM *Dolorology: Comprehensive Management of Pain (Pain Game)*. Roanoke Room.
 Norman Shealy, M.D., Director of Pain Rehabilitation Center, La Crosse, Wisc.
Long-Term Follow-up of Patients with Stroke
 Franz U. Steinberg, M.D., Director, Department of Rehabilitation Medicine, Jewish Hospital, St. Louis.
Rehabilitation of the Patient with Stroke
 Agnes Moon, M.D., Assistant Professor, University of Missouri-Columbia, Medical Center, Rusk Rehabilitation Center.
 Moderator: Charles Peterson, M.D., Columbia.
 Sponsored by Physical Medicine and Rehabilitation.

- ° 11:00 AM *Surgery for Incontinence*. Shawnee Room.
Speaker: Joseph E. Montie, M.D., Assistant Professor of Urology, University of Missouri-Columbia.
The Adrenogenital Syndrome
Speaker: Gilbert Ross, Jr., M.D., Professor of Urology, University of Missouri-Columbia.
Moderator: Lin Puckett, M.D., Columbia.
Sponsored by the Missouri State Surgical Society.
- 12:15 PM Missouri Ophthalmological Society, Inc. Luncheon. Centennial Room "B."
- 12:30 PM Missouri OB-GYN Society and the American College of Obstetricians and Gynecologists Luncheon. Century Room. (This will include the State Maternal Mortality Committee Report and a business meeting of the Missouri OB-GYN Society.)
- 12:30 PM Fifty-Year Club Luncheon. Presidents Room.
- 12:30 PM Physical Medicine and Rehabilitation Luncheon. Ambassadors Board Room.
- 12:30 PM Missouri Society of Neurosurgeons Luncheon. Executives Board Room.
- 1:30 PM *Newer Imaging Systems*. Westport Room.
Moderator: Jack L. Stuber, M.D., Kansas City.
Participants:
Initial Experience with Total Body CAT Scanning in a Private Practice, Rodger Lambie, M.D., Menorah Medical Center, Kansas City.
Gray Scale Ultrasound of the Abdomen and Pelvis, William J. Walls, M.D., Assistant Professor, Diagnostic Radiology, University of Kansas Medical Center, Lawrence, Kan.
Xeroradiography, Kenneth C. Hollweg, M.D., Kansas City.
Sponsored by the Missouri Radiological Society.
- ° 2:00 PM *Clinical Problems in Photosensitivity*. Penn Valley Room.
Moderator: Gordon Sauer, M.D., Kansas City.
Speaker: John Epstein, M.D., Editor, *AMA Archives of Dermatology*; Clinical Professor of Dermatology, University of California, San Francisco, Calif.
Panel Discussion—Common Skin Problems.
Panel Participants:
Gene Bauer, M.D., St. Louis.
Ernest Lorenc, M.D., Springfield.
Dallas Johnson, M.D., Kansas City.
Gordon Sauer, M.D., Kansas City.
Sponsored by the Missouri Dermatological Society.
- ° 2:00 PM *Symposium—Head and Neck Cancer: Emerging Concepts in Total Care*. Shawnee Room.
Moderator. Michael F. Hughes, M.D., Kansas City.
Participants:
Charley W. Norris, M.D., Assistant Professor of Otolaryngology, University of Kansas Medical School, Kansas City, Kan.
George Cowan, M.D., Chairman, Department of Radiotherapy, Menorah Hospital, Kansas City.
John P. Murray, M.D., Assistant Professor of Otolaryngology, Washington University School of Medicine, St. Louis.
William E. Davis, M.D., Assistant Professor of Otolaryngology, University of Missouri-Columbia.
Sponsored by the Missouri Ear, Nose and Throat Association, Inc.
- ° 2:00 PM *Ask the Expert*. Mission Room.
Moderator: James E. Bickley, M.D., Kansas City.
Panel Participants:
Jack M. Schneider, M.D., Lubbock, Tex.
Albert B. Gerbie, M.D., Chicago, Ill.
William T. Griffin, M.D., Columbia.
Elizabeth James, M.D., Columbia.
Sponsored by the American College of Obstetricians and Gynecologists.
- 3:30 PM Intermission to View Exhibits.
- 5:00 PM Missouri University Medical Alumni Cocktail Party. Mission Room.
- 5:00 PM St. Louis University Medical Alumni Cocktail Party. Shawnee Room.
- 5:00 PM Washington University Medical Alumni Cocktail Party. Roanoke Room.
- 6:30 PM Social Hour for those attending Banquet. Century Room.
- 7:15 PM Annual Banquet in Honor of Past-Presidents. Century Room.

Sunday, April 4

- 7:30 AM House of Delegates, Breakfast and Final Session. Century Room.

All Physicians' Wives Are Invited to Attend Special Events at Annual Session

A program of special events is being planned for all physicians' wives who accompany their husbands to the MSMA Annual Session in Kansas City.

The MSMA Woman's Auxiliary has announced that the events are scheduled on Thursday, Friday and Saturday during the 118th MSMA Annual Session and the Annual Convention of the Auxiliary on April 1-4 at the Crown Center Hotel.

According to Mrs. William R. McPhee, President, the Auxiliary is sponsoring the special sessions to enhance fellowship at the annual gathering of Missouri medical families. Mrs. McPhee emphasizes that physicians' wives need not be members of the Auxiliary to participate. All are invited to attend the business and other sessions of the Auxiliary Convention as well as the special events.

In addition to a bus tour of Kansas City's fine residential areas and to historic Jackson County landmarks, the new program will include a luncheon and play at Tiffany's Attic Dinner Theater, needlepoint workshops, a public affairs breakfast and the Auxiliary's annual installation luncheon. Spouses of MSMA members also are invited to join the Dutch-Treat group for dinner and fun on Thursday and Friday evenings.

Another new innovation at this year's meeting will be the MSMA Auxiliary's "Silent Auction" in the Grand Avenue Gallery. Everyone attending the convention is invited to bid on art and gift items created and donated by Missouri medical families. All profits will be donated to the Missouri State Medical Foundation, which provides loans for deserving Missouri medical students.

The Silent Auction display will be open for bidding from 9 AM until 6 PM on Friday and from

8:30 AM until 10 AM on Saturday.

Following is the schedule for the special events:

Thursday, April 1

12:30 PM **Bus Tour** of Kansas City's fine residential areas and historic Jackson County landmarks (\$6.50).

3:00 PM **Needlepoint Mini-Workshop I.** President Elect's Suite. Designed for experienced workers (no charge).

Friday, April 2

9:00 AM **Needlepoint Mini-Workshop II.** President Elect's Suite. Basics for beginners (no charge).

11:45 AM **Busses to Tiffany's Attic Dinner Theater** Luncheon honoring Mrs. Erle R. Wilkinson, President of the AMA Auxiliary, and Mrs. J. Gordon Dees, President of the Southern Medical Woman's Auxiliary (\$8.00).

Play—"6 RMS RIV VU" (Six Rooms With River View). This is the play that was so successful in New York that it was televised nationally with Alan Alda and Carl Burnett in starring roles.

Saturday, April 3

7:30 AM **Public Affairs Breakfast.** Liberty Room. Speaker: Max Parrott, M.D., President of the American Medical Association (\$5.00).

12:30 PM **Luncheon and Installation of Officers.** Liberty Room (\$7.00).

To make your advance reservations, please fill out and forward the reservation form below. All interested persons are invited to visit the Auxiliary Registration Desk in the Liberty Room during the meeting for additional information.

RESERVATION FORM—MSMA AUXILIARY CONVENTION EVENTS

(Your Name) _____

(Address) _____

Please check events you wish to attend:

Thurs., April 1

— Bus tour \$6.50

— Needlepoint mini-workshop

Fri. April 2

— Needlepoint mini-workshop

— Tiffany's Attic Dinner Theater \$8.00

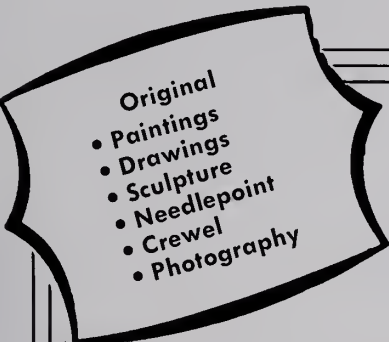
Sat., April 3

— Public affairs breakfast \$5.00

— Installation luncheon \$7.00

Please mail form with your check to "Aux. to J.C.M.S. Convention Fund" to: Mrs. James W. Vaughn, 5509 W. 86th, Shawnee Mission, Kan.

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 - Sculpture
 - Needlepoint
 - Crewel
 - Photography

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EXHIBITION and SILENT AUCTION **OF THE ART OF MEDICAL FAMILIES**

*For the Benefit of
Missouri Medical Students!*

Friday and Saturday, April 2-3

Crown Center Hotel—Kansas City

All proceeds will be
donated to the MSMF

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You owe it to yourself to discover the
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The Council Reports

Meeting of Dec. 13, 1975

Howard J. McAlhany, M.D., Springfield, Chairman, called the meeting to order. Those present were Drs. McAlhany; R. Allen Chandler, Kansas City; Max S. Franklin, St. Louis; John I. Matthews, Jefferson City; Richard V. Bradley, St. Louis; James C. Cope, Columbia; John N. Martin, St. Joseph; J. Russell Comer, Hannibal; Donald Judd, St. Louis; Louis P. Hetlage, Troy; Robert E. Bregant, Jefferson City; William D. Bradshaw, Clinton; Andrew McCause, Kansas City; Claude W. Cooper, Thayer; Eugene T. Hansbrough, Poplar Bluff; Stanley S. Peterson, Springfield; Hubert A. Ritter, St. Louis; George Ladyman, Poplar Bluff; John Laird, St. Louis; Francis Maple, Springfield; M. Kenton King, St. Louis; David Challoner, St. Louis; Charles Lobeck, William C. Allen, Joseph White and John Yarbrow, Columbia; Mrs. William McPhee, Kansas City; Mrs. George Wilson, Columbia; Messrs. Hollister Smith, St. Louis; Ray McIntyre, Royal O. Cooper, C. C. Swarens, Ron Ellison and Don Wilson, Staff.

On motion, duly seconded, the minutes of the Sept. 13, 1975 Council Meeting were approved as printed.

EXECUTIVE SECRETARY'S REPORT

Mr. McIntyre called on Mr. Swarens to review the Health Service Area situation in Missouri. Mr. Swarens indicated that the MSMA office has been receiving requests for the past several days asking for suggestions for nominees from the MSMA to turn in for possible membership on various HSA Boards. Mr. Swarens indicated that things are moving quite rapidly with the HSAs as December 19 is the cutoff date for funding. Almost all are in different stages of development at the present time.

BUDGET AND FINANCE COMMITTEE REPORT

The Budget and Finance Committee met on Friday afternoon, December 12, prior to the Council Meeting on Saturday. The Committee reviewed the material presented which showed Exhibit A—Actual Income through Oct. 31, 1975; Expected Total Income for 1975; Income Budget for 1975 and Estimated Receipts for 1976; Exhibit B—Actual Expenditures through Oct. 31, 1975; Estimated Expenditures for 1975; Budget for 1975 and Proposed Budget for 1976; Exhibit C—Actual Meeting and Committee Expenses through Oct. 31, 1975; Estimated Expenses for all of 1975; Budget for 1975 and Proposed Budget for 1976. A breakdown of anticipated income and expenses for the years 1975 and 1976 was also included.

Dr. Bradley, Chairman of the Budget and Finance Committee, reported that the Association has more than sufficient capital for all 1975 debts and the committee recommends that since there is sufficient available operating capital, the note on the MSMA building at 113 Madison should be retired. It was further recommended that Staff, along with Dr. Matthews, investigate the possibility of future real estate involvement in nearby properties.

On motion, duly seconded, the above two recommendations were approved by the Council.

The Budget and Finance Committee approved the following proposed Budget for 1976:

Salaries	\$182,894.00
Furniture and Fixtures	750.00
General Expense	5,300.00
Office Supplies	7,000.00
MSMF Assessment	42,080.00
JOURNAL Expense	45,000.00
Postage	7,000.00
Equipment Rentals & Repairs	3,800.00
Telephone & Telegraph	9,500.00
Pension Expense	18,000.00
Legal & Professional	10,000.00
Payroll Taxes	8,731.00
Commission—Committee Meetings	63,500.00
Annual Session	25,000.00
Discretionary Council Fund	5,000.00
Taxes—IRS	487.00
Travel Expenses	16,000.00
Building Expenses	13,600.00
MMPAC Educational Projects	3,000.00
Improvements to Building	1,500.00
AMCAP (Computer Program)	1,000.00

TOTAL \$469,142.00

After a brief discussion of the proposed Budget, on motion, duly seconded the report of the Budget and Finance Committee was approved in toto.

REPORT OF MSMA PRESIDENT

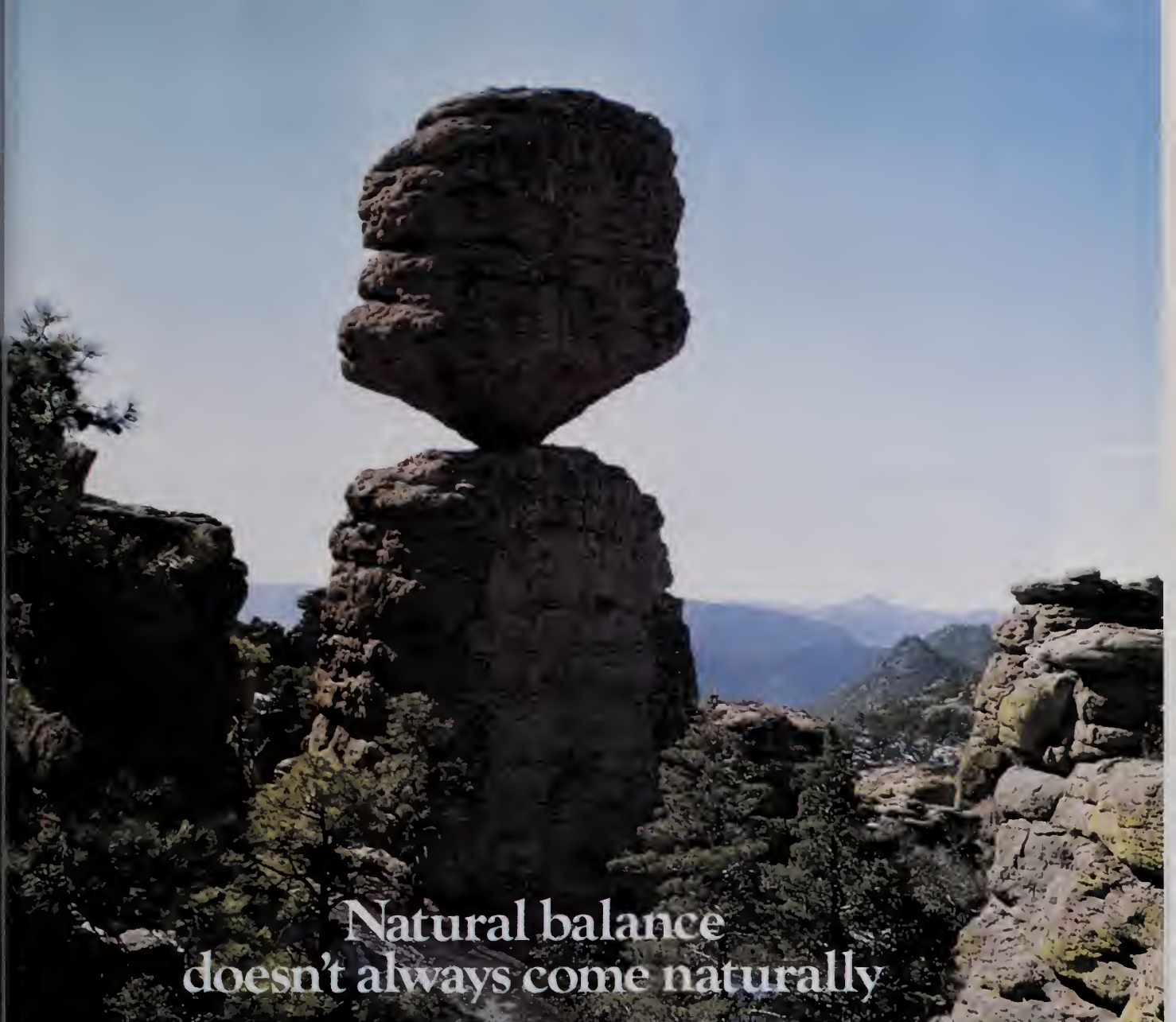
President Chandler reported that an Ad Hoc Committee on Malpractice has been formed in Jackson County along with Clay County and has held several meetings. The MSMA is being criticized for not having the malpractice problem completely under control. Many physicians are not even aware of what the MSMA is doing in this regard, even though we have tried our best to keep them informed. Dr. Martin had made a suggestion on Friday evening regarding restudying the JOURNAL and finding new ways to communicate current problems to the membership. Dr. Chandler stated that he hoped the Chairman will appoint a committee to look into this matter with Dr. Finnegan.

Dr. Chandler reported that he attended the Grand River Medical Society Christmas Meeting and had a very enjoyable evening.

Dr. Chandler indicated that MSMA officials met with officials of the Missouri Association of Osteopathic Physicians and Surgeons on the prior evening and will be working closely with them on legislation to help alleviate some of the problems in this area.

COMMITTEE ON PLANNING

Mr. Cooper reported that the Committee on Planning met in Columbia on November 14. Dr. Franklin, President-Elect of the MSMA, at the request of the Committee, outlined briefly for the Committee some items he would like to accomplish during his term as President. He urged support of Dr. Ritter on his candidacy for the AMA Board of Trustees; indicated he would like to see unified membership in Missouri; mentioned the present situation regarding



Natural balance doesn't always come naturally

Big Balanced Rock, Chiricahua Mountains, Arizona (approx. 1,000 tons)

Found useful in the management of vertigo* associated with diseases affecting the vestibular system.

Can relieve nausea and vomiting often associated with vertigo*.

Usual adult dosage for Antivert/25 for vertigo*: one tablet t.i.d.

Also available as Antivert (meclizine HCl) 12.5 mg. scored tablets, for dosage convenience and flexibility.

Antivert/25 (meclizine HCl) 25 mg. *Chewable* Tablets for nausea, vomiting and dizziness associated with motion sickness.

EF SUMMARY OF PRESCRIBING INFORMATION

INDICATIONS. Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows:

Effective: Management of nausea and vomiting and dizziness associated with motion sickness.

Possibly Effective: Management of vertigo associated with diseases affecting the vestibular system.

Final classification of the less than effective indications requires further investigation.

CONTRAINDICATIONS. Administration of Antivert (meclizine HCl) during pregnancy or to women who may become pregnant is contraindicated in view of the teratogenic effect of the drug in rats.

The administration of meclizine to pregnant rats during the 12-15 day of gestation has produced cleft palate in the offspring. Limited studies using doses of over 100 mg./kg./day in rabbits and 10 mg./kg./day in pigs and monkeys did not show cleft palate. Congeners of meclizine have caused cleft palate in species other than the rat.

Meclizine HCl is contraindicated in individuals who have shown a previous hypersensitivity to it.

WARNINGS. Since drowsiness may, on occasion, occur with use of this drug, patients should be warned of this possibility and cautioned against driving a car or operating dangerous machinery.

Usage in Children: Clinical studies establishing safety and effectiveness in children have not been done; therefore, usage is not recommended in the pediatric age group.

Usage in Pregnancy: See "Contraindications."

ADVERSE REACTIONS. Drowsiness, dry mouth and, on rare occasions, blurred vision have been reported.

More detailed professional information available on request.

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A division of Pfizer Pharmaceuticals
New York, New York 10017

Antivert[®]/25 (meclizine HCl) 25 mg. Tablets for vertigo*

VISUAL FOCUS ON ACUTE GOUTY ARTHRITIS



Foot of patient with acute gouty arthritis as seen by conventional x-ray.



Scintiphotogram of same foot reflects inflammatory process.

The scintiphotograph on the right shows increased uptake of radiotechnetium polyphosphate in the metatarsophalangeal joint and the proximal interphalangeal

joint of the great toe of a patient with acute gout arthritis. This increased uptake probably results from increased vascularity in the affected areas.

For a more detailed description of scintiphotography, see "addendum" at right.

THERAPEUTIC FOCUS ON

CAPSULES, 25 mg and 50 mg

INDOCIN[®]

[INDOMETHACIN | MSD]

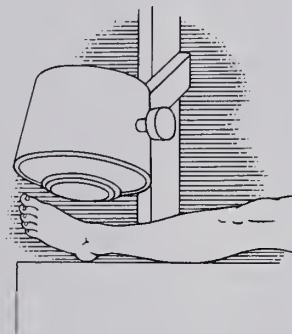
*helps relieve pain
and other symptoms
of inflammation
in acute
gouty arthritis
in selected patients*

INDOCIN is a potent drug with anti-inflammatory, antipyretic, and analgesic properties. It should not be used in conditions other than those recommended. Although INDOCIN does not alter the progressive course of the underlying disease, in selected patients with acute gouty arthritis it has been found highly effective in relieving pain and in reducing fever, swelling, and tenderness.

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For a brief summary of prescribing information, please see following page.

Facts about Scintiphotography



In recent years a variety of radiopharmaceuticals have been employed to aid in the diagnosis of bone and joint disorders. The joint-imaging technique consists of injecting technetium polyphosphate intravenously, and imaging is performed with the scintillation camera two hours after the administration of the radionuclide. In general, for joint surveying, the shoulders, elbows, hands, wrists, knees, ankles, feet, and vertebral column are mapped. The entire scanning process takes approximately one hour. The criterion for a positive image is a higher concentration of radioactivity in a joint region than in adjacent nonarticular bone. In effect, each patient serves as his own control.

INDOCIN[®]

(INDOMETHACIN | MSD)



helps relieve pain
and other symptoms
of inflammation
in acute
gouty arthritis
in selected patients

IMPORTANT NOTE: INDOCIN (Indomethacin, MSD) cannot be considered a simple analgesic and should not be used in conditions other than those recommended. The drug should not be prescribed for children because safe conditions for use have not been established.

Because of the high potency of the drug and the variability of its potential to cause adverse reactions, the following are strongly recommended: 1) the lowest possible effective dose for the individual patient should be prescribed. Increased dosage tends to increase adverse effects, particularly in doses over 150-200 mg per day, without corresponding clinical benefits; 2) careful instructions to, and observations of, the individual patient are essential to the prevention of serious and irreversible, including fatal, adverse reactions, especially in the aging patient.

Contraindications: Children 14 years of age and under; pregnant women and nursing mothers; active gastrointestinal lesions or history of recurrent gastrointestinal lesions; allergy to aspirin or indomethacin.

Warnings: *Gastrointestinal Effects:* Because of the occurrence and, at times, severity of gastrointestinal reactions, be continuously alert for any sign or symptom signaling a possible gastrointestinal reaction. The risks of continuing therapy with INDOCIN in the face of such symptoms must be weighed against the possible benefits to the individual patient. Gastrointestinal effects may be reduced by giving the drug immediately after meals, with food, or with antacids. Use greater care in aging patients.

Ocular Effects: Corneal deposits and retinal disturbances, including those of the macula, have been observed in some patients on prolonged therapy. Discontinue therapy if such changes are observed. Ophthalmologic examination at periodic intervals is desirable in patients on prolonged therapy.

Central Nervous System Effects: INDOCIN may aggravate psychiatric disturbances, epilepsy, and parkinsonism, and should be used with considerable caution in patients with these conditions. If severe CNS adverse reactions develop, discontinue the drug.

Precautions: Blurred vision may be a significant symptom that warrants a thorough ophthalmologic examination. Patients should be cautioned about engaging in activities requiring mental alertness and motor coordination; as driving a car. Headache which persists despite dosage reduction requires complete cessation of the drug. May mask the usual signs and symptoms of infection; therefore, the physician must be continually on the alert for this and should use the drug with extra care in the presence of existing controlled infection. After the acute phase of the disease is under control, an attempt to reduce the daily dose should be made repeatedly until the patient is off entirely.

Adverse Reactions: *Gastrointestinal Reactions:* Single or multiple ulcerations of the esophagus, stomach, duodenum, or small intestine, including perforation and hemorrhage, with fatalities in some instances; rarely, intestinal ulceration has been associated with stenosis and obstruction; gastrointestinal bleeding without obvious ulcer formation; perforation of pre-existing sigmoid lesions (diverticulum, carcinoma, etc.); rarely, increased abdominal pain in ulcerative colitis patients or development of ulcerative colitis and regional ileitis; gastritis, which may persist after the cessation of the drug; nausea, vomiting, anorexia, epigastric distress, abdominal pain, and diarrhea.

Eye Reactions: Corneal deposits and retinal disturbances, including those of the macula, have been observed on prolonged therapy; blurring of vision.

Hepatic Reactions: Rarely, toxic hepatitis and jaundice, including some fatal cases.

Hematologic Reactions: Aplastic anemia, hemolytic anemia, bone marrow depression, agranulocytosis, leukopenia, and thrombocytopenic purpura. Since some patients manifest anemia secondary to obvious or occult gastrointestinal bleeding, appropriate blood determinations are recommended.

Hypersensitivity Reactions: Acute respiratory distress, including dyspnea and asthma; angitis; pruritus; urticaria; angioedema; skin rashes; purpura.

Ear Reactions: Hearing disturbances, deafness, tinnitus.

Central Nervous System Reactions: Psychic disturbances including psychotic episodes, depersonalization, depression, and mental confusion; coma; convulsions; peripheral neuropathy; drowsiness; lightheadedness; dizziness; syncope; headache.

Cardiovascular-Renal Reactions: Edema, elevation of blood pressure, hematuria.

Dermatologic Reactions: Loss of hair, erythema nodosum.

Miscellaneous: Rarely, vaginal bleeding, hyperglycemia, glycosuria, ulcerative stomatitis, and epistaxis.

Note: In patients receiving probenecid, plasma levels of indomethacin are likely to be increased.

Supplied: Capsules containing 25 mg indomethacin each, in single-unit packages of 100 and bottles of 100 and 1000; capsules containing 50 mg indomethacin each, in single-unit packages of 100 and bottles of 100.

For more detailed information, consult your MSD representative or see full prescribing information. Merck Sharp & Dohme, Division of Merck & Co., Inc., West Point, Pa. 19486

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amalgamation of St. Louis City and St. Louis County and the possibility of establishing an ad hoc statewide committee to do planning work on redistricting as time goes on; and discussed the MSMA lobbying effort. Also, during his remarks to the Committee, Dr. Franklin discussed the problems that might be involved in a mandatory reexamination or licensure program.

The Committee discussed the CME Program and suggested that members of the Association should be encouraged to participate in the MSMA voluntary program.

During the Committee meeting, Mr. McIntyre discussed the publication *Missouri Life*. The editor has asked MSMA staff for assistance in informing physicians and citizens of the publication. The Committee suggested that the publisher might direct a letter and a copy of the magazine to the physician's office, along with subscription information or, possibly, a reprint of one of the articles could be submitted.

During the Committee's 1974 meeting they recommended that a study of electronic data processing proposals be made by the Association. The AMA has surveyed the MSMA office and submitted a proposal. Mr. Cooper indicated that since the planning meeting, our CPA has gone to the AMA and studied this proposal. He seems quite enthusiastic about what the program does have to offer. The Planning Committee discussed the Committee and Commission recognition awards and it was suggested that the Chairmen of Commissions and Committees be utilized to assist staff in developing some criteria for this recognition.

The Committee discussed Dr. Franklin's recommendations: (1) Support will be given to Dr. Ritter's candidacy for AMA Board and the Committee urged the Council to support him as a candidate; (2) They suggest that the Council should keep in mind the possible amalgamation of the two St. Louis medical societies and the problems of redistricting; (3) It was indicated that resolutions will undoubtedly be introduced at the MSMA 1976 House of Delegates regarding unified membership; (4) Discussed lobbying funds, and it was their opinion that sufficient funds should always be made available for this purpose.

The Committee commended the MSMA on its voluntary CME program.

Dr. Franklin spoke to the Council briefly regarding his suggestions to the Planning Committee. On motion, duly seconded, the Council accepted the report of the Committee on Planning.

REPORT OF AMA DELEGATES

Dr. Stanley Peterson reported on the AMA Clinical Session held in Hawaii, indicating that six of our AMA Delegates and Alternates were in attendance. He briefly outlined some of the actions taken by the House. The House adopted a Board of Trustees report calling on medical societies to express to Congress their concern that proposed new amendments to Medicare and Medicaid would discourage physician participation and defeat the goals of the federal programs. The amendments would fix Medicaid reimbursement at 80% of the Medicare basis, which is limited by the 75th percentile provisions and "unrealistic economic indexes."

The House backed the AMA-developed bill to correct rule-making abuses through the *Federal Register* and called on physicians and medical societies to give active support to the bill.

A report opposing the National Health Planning and Resources Development Act was approved by the House. The House reaffirmed its support of the AMA-developed national health insurance bill (HR 6222). The House approved the establishment of an Ad Hoc Committee on

Medical Discipline to determine if incompetent physicians are the cause of the high liability costs.

The House asked the State Societies to urge their Legislatures to adopt the AMA-developed model "Disabled Physician Act." The AMA reorganization movement was on again and a series of proposals to change the structure of the AMA were debated. The House accepted a recommendation to abolish the office of AMA Vice-President.

Dr. Peterson reported that the Delegates were enthusiastic about Dr. Ritter's candidacy for the Board and that another Missourian is up for reelection and that is Dr. Joseph M. White of Columbia to the Council on Medical Education.

Dr. Peterson stated that actions that were taken by the AMA at the Hawaii meeting are published in the green sheet and the MSMA yellow sheet will also carry them.

Dr. Hetlage indicated that in talking with people at the Hawaii meeting, other states are really impressed by the effectiveness of the small MSMA delegation and they have a high regard for them. Dr. Hetlage said that he still feels that members of the Missouri delegation should wear the same color jackets.

On motion, duly seconded, the Council moved to enthusiastically support Dr. Hubert A. Ritter in his candidacy to the AMA Board of Trustees and Dr. Joseph M. White to the Council on Medical Education.

On motion, duly seconded, the report of the AMA Delegates was accepted by the Council.

CONTINUING MEDICAL EDUCATION

Dr. Ladyman brought the Council up-to-date on the activities regarding the Continuing Medical Education Program. He indicated that there are now 14 institutions and organizations in Missouri that have been accredited by the



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AMA Council on Continuing Medical Education for the CME activities. He also indicated that we have received requests from eight specialties, one county medical society and 14 hospitals expressing their desire to participate in the MSMA-CME program. Doctors Hospital, Inc., Poplar Bluff, has been the first hospital to be accredited by the MSMA, and Dr. Rutledge Howard from the AMA was very pleased with the CME program there. The CME program will be fully implemented as of Jan. 1, 1976.

Dr. Ladyman further stated that there will be a fee for the accreditation surveys and it is anticipated that this fee will be around \$250. This fee will be applicable to hospitals and institutions, but it was felt that the local county medical societies and specialty organizations would not be charged a fee.

Dr. Ladyman reported that the opening session of our 118th Annual Session will feature Dr. Max Parrott, President of AMA, and Rep. Paul Rogers, Member, U. S. Congress. There are 26 sessions sponsored by 14 specialty groups and two voluntary health agencies.

A brief discussion followed regarding various aspects of the CME program. Dr. Ladyman indicated that individual programs cannot be accredited, but that the MSMA accreditation program will be focused at the institution or organization. The institution should have someone responsible for coordinating the medical education programs.

Dr. Ladyman indicated that letters have gone out informing hospitals in the state of Missouri regarding the MSMA-CME program. If they express interest in participating in the program, they will be forwarded a pre-survey questionnaire and, when completed, to be returned along with a \$50 deposit. After reviewing the pre-survey questionnaire and the CME Committee is satisfied that the essentials are met, a date will be set for a site team visit. The recommendations of this site team will then be directed to the Ad Hoc Committee on CME.

It was pointed out that the CME program is one of the most significant accomplishments of the MSMA and continuing reports regarding its progress will be made to the Council. On motion, duly seconded, the report was approved, stipulating that this includes not charging county medical societies a fee for accreditation surveys.

MSMA WOMAN'S AUXILIARY

Mrs. McPhee reported that the MSMA Woman's Auxiliary Fall Conference was a success and thanked the Council for their help.

The Auxiliary asked for Council approval for a project it would like to undertake and that is distributing posters regarding "Emergency Treatment for Food Choking." This is in conjunction with the Missouri Restaurant Association and the Missouri Nursing Home Association. The Auxiliary will finance the project. On motion, duly seconded, approval was given the Auxiliary for this project.

Mrs. McPhee reported that Mrs. Erle Wilkinson, President of the AMA Woman's Auxiliary, will attend the Annual Meeting. She also gave a brief rundown on some of the planned activities for the Auxiliary's program at their Annual Session. She asked that the Association might publicize the Auxiliary's program and mention in Dr. Chandler's letter to the membership that Mrs. Wilkinson will attend and, also, include a special invitation to wives of physician members who are not members of the Auxiliary. On motion, duly seconded, this was approved by the Council.

Mrs. McPhee asked the Council to let the Auxiliary know when they can be of assistance regarding legislation or other projects.

The Chair accepted the report of the Woman's Auxiliary with commendation.

STUDY OF MUTUAL ASSESSMENT COMPANY

Dr. Cope indicated that since the passage of legislation which would allow physicians of Missouri to develop a mutual assessment company, MSMA has been under some pressure to pursue this. The Chairman of the Council appointed a committee to study the matter and named Dr. Cope as Chairman. Dr. Cope indicated that this is not a complete report. Much information is needed before we can arrive at any conclusions. The Committee met on November 6 with a local law firm representative to explain this type of insurance company and how it might be established. It was his opinion that it would require approximately 50% participation of MSMA members and \$4 million capitalization before such a company should be formed. Also, the re-insurance question must be answered. The market is very fluid and unstable at this time.

Dr. Cope reported that a questionnaire is now being developed to be sent to MSMA membership seeking to acquire actuary information and supply the actuaries with the data needed for premium schedules and to determine the depth of interest members have in abandoning their present insurance and going to a mutual assessment company.

It was pointed out that this is a very complicated undertaking and the committee will continue to research the possibility of a mutual assessment company.

AD HOC COMMITTEE ON MEETING OF COMPONENT MEDICAL SOCIETY REPRESENTATIVES

Dr. John Laird, Chairman of the Ad Hoc Committee on Meeting of Component Medical Society Representatives, reported that a meeting was held Oct. 17-18 at the Lodge of the Four Seasons, Lake of Ozarks. There were 21 representatives of 16 medical societies in attendance, plus the Chairman. Some of the specific topics covered were (1) Structure and Functions of County Medical Societies; (2) Continuing Medical Education; (3) Emergency Medical Services; (4) Malpractice Insurance; (5) AMA Membership; (6) Physician Reimbursement; (7) General Topics—PSRO; HSAs; Customary Fees as determined by the insurance carrier. Most of the meeting was of an open discussion type, which seemed to be well received by all present. It was planned that no recommendations would be made by the Committee as a whole, but that each society representative would make his own recommendations to his individual society and that this be an information-gathering session. Dr. Laird said that he felt the meeting was very worthwhile.

An evaluation questionnaire was sent out following the meeting with all attendants responding. All felt this was a good way of getting information to others and of providing information on what is going on in various societies. All recommended the informal structure of the meeting without division into smaller groups. They were satisfied with the general topics of discussion and recommended this type of forum be continued.

On motion, duly seconded, the report was accepted with commendation to the Chairman.

It was further moved that the Ad Hoc Committee on Component Medical Society Representatives Meeting be continued on an annual basis under the Commission on Public Affairs with the suggestion to the Chairman that the format carried out this year be continued. Motion carried.

PROPOSED HEALTH SERVICES DATA SYSTEM

Dr. Francis Maple reported that for sometime, hospitals have been putting out data from their medical records to various people and there are many, many different kinds of forms to be filled out. It was obvious that this is a

problem. There was no uniformity of how this was done and a task force at the PSRO level identified the problem. It was recommended that a data corporation be set up for the state of Missouri. The corporation will have as its primary intent the control of data emanating from the hospitals and other health institutions. It is hoped that by doing this, each hospital will have only one unified data discharge set that will need to be provided instead of the multiple forms that the hospitals now have to fill out. There will be 19 on the corporation Board of Directors to include MSMA, MAOPS, Missouri Hospital Association, PSRO, Division of Health, Division of Family Services and Missouri Medical Records Association.

On motion, duly seconded, the Council approved the formation of this corporation and recommended approval of the following physicians to the Board of Directors: Andrew McCanse, M.D., Kansas City, Area I; Wellington Stewart, M.D., Columbia, Area II; Falls B. Hershey, M.D., St. Louis, Area III; Francis M. Maple, M.D., Springfield, Area IV; and Stanley D. Sides, M.D., Cape Girardeau, Area V.

REPORTS OF THE DEANS

The Medical School Deans gave statistics on the numbers of students enrolled in the various schools and the high scholastic quality of enrolling students.

Dr. Lobeck, new Dean at the University of Missouri-Columbia School of Medicine, reported the hiring of a new Director of Neurosurgery and also Dean of the Nursing School.

It was reported that the University of Missouri-Columbia is in the process of updating its patient guide for physicians on referrals. This contains physicians' names, departments and phone numbers. Council approval was asked on the new format to be used for this referral guide. On motion, duly seconded, the Council approved this referral guide.

Dr. Franklin asked about the possibility of forming a Fifth Pathway to take care of American students studying in foreign countries on their return to the United States. It was indicated that until now, there has not been sufficient requests or interest in such.

Dr. Challoner of St. Louis University indicated that they are delighted with Dr. Ritter's candidacy to the AMA Board of Trustees and, also, Dr. White for his reelection to the Council on Medical Education.

There was some discussion as to the selection of medical students and whether there is some way to determine a student's quality of human interest along with high grade point averages. Dr. Challoner said that this is a very difficult determination to make. However, in the interview and by reviewing letters, this is definitely a quality they do try to determine.

Dr. King reported that Washington University has established a Department of Genetics through a gift of \$4 million. Dr. King said that they will discuss the health manpower legislation proposals now current.

Discussion was held as to whether there had been any recent surveys made regarding what becomes of the female medical graduate ten to 15 years following graduation. It was pointed out that any studies that might have been done in the past probably would not apply to young women in medical school today.

Dr. McCanse reported that Dr. Noback expressed regret at his inability to be present at this meeting due to an upcoming visit to the medical school by the Liaison Committee on Medical Education. The University of Missouri-Kansas City School of Medicine also is studying the health manpower legislation and hopes that it is not too restrictive.

Dr. McCanse stated that Dr. Christianson of the Office Education Resources has compiled an audio-visual catalog. The UMKC curriculum book has been revised recently by

the practitioners in Kansas City. The Truman Medical Center will be finished next August and hopes are to move into it in September. A group of 20 students and faculty members are scheduled for a trip to China.

REPORTS OF DISTRICT COUNCILORS

District #1—Dr. Martin reported that the Methodist Medical Center in St. Joseph is undertaking a \$16 million expansion. Mr. Warren Hinton, Administrator at the Methodist Medical Center, has recently been appointed to the Board of Health.

Dr. Martin stated that he agreed that all physicians should take part in HSAs.

Mr. Gary Clark, who had been serving as temporary Executive Director of the State Board of Registration for the Healing Arts, has been appointed as permanent Executive Director.

Dr. Martin pointed out that due to a new law, the State Board of Registration for the Healing Arts no longer has the power to take a physician's license. The Board can investigate a physician, but then it must turn over its information to the State Hearing Commissioner who makes the final judgment.

Dr. Martin stated that he hoped to have a Councilor District meeting in February. He reported that Dr. John P. Ferguson of Springfield was recently appointed to the Board of Registration for the Healing Arts.

District #2—Dr. Comer stated that he had attended the meeting of the Component Medical Societies' representatives at the Lodge of the Four Seasons and he felt that it was an excellent meeting. Dr. Comer stated that one of the most important points discussed during this meeting was the problem of communications.

Dr. Comer indicated that he hoped to have a program in his District whereby there would be an Executive Session before each county society meeting at which he would report on current issues, problems, etc. to the county society officers in order that they might be better informed.

District #3—Dr. Judd reported that several committees in his district are quite active. Among these are committees on insurance liaison, hospital-physician relations, HSA, PSRO, medical-legal and malpractice crisis committee.

Dr. Judd reported that meetings were being held every two to three weeks on HSAs. There will be 60 members on the HSA Board in the St. Louis area. Dr. Judd reported that CEMPROC, the PSRO group in St. Louis, is active.

Dr. Judd said that the physicians in his area are concerned about the malpractice situation and are willing to do anything they can to support our actions to help solve the problems.

District #4—Dr. Hetlage reported that he had recently received a flyer from *Newsweek* and part of the flyer stated that there are more than 5% or some 19,999 incompetent physicians in the U. S. Dr. Hetlage stated that he sent copies of the flyer to the AMA and that both he and the AMA had written *Newsweek* objecting to this kind of advertising.

Newsweek has replied to Dr. Hetlage's letter indicating that they will not use this type of advertising in the future.

Dr. Hetlage stated that at the last Council Meeting, he had introduced a resolution in regard to UCR programs. Both the Medical Economics Commission and the Council recommended that when a physician is involved with a UCR program, the physician and the patient should agree on a fee before surgery.

Dr. Hetlage stated that he would like to submit the following resolution in regard to a change in the Bylaws of the MSMA:

WHEREAS, the MSMA Council meets prior to and im-

mediately after each Annual Meeting of the House of Delegates, and

WHEREAS, The presence of individual Councilors and the Council as a whole has become increasingly necessary at this meeting, therefore be it

Resolved, That Page 7, Chapter VI, Section 2 of the MSMA Bylaws be revised as follows:

In the sentence referring to compensation of Councilor expenses, which at the present reads as follows: "but this shall not include his expense in attending the Annual Session of the Association," substitute "including" for the words, "but this shall not include," so that the sentence would then read as follows: "The necessary traveling expenses incurred by each Councilor in the line of duties herein imposed may be allowed on a proper itemized statement submitted monthly and within the current year, including his expense in attending the Annual Session of the Association."

The motion was made, seconded and carried that this resolution be accepted.

Dr. Hetlage again brought to the Council's attention the fact that LPNs and RNs are inserting ear studs for customers in department stores without medical supervision.

Dr. Chandler stated that all the Councilors had a copy in their folders of an article concerning physicians that appeared in the *St. Louis Globe-Democrat*. Dr. Chandler indicated that he felt a letter should be written in reply to this article.

District #5—Dr. Bregant reported that he had recently attended a meeting of a group of professionals where representatives of various professions got together to discuss common problems. Some of the common problems discussed were liability, mandatory CME, public membership on Boards, etc. Dr. Bregant reported that it was felt that the group should meet once in January and once in the summer. Dr. Bregant indicated that he felt this is a worthwhile endeavor and that MSMA should continue to send officers to attend these meetings.

The motion was made, seconded and carried that the officers of this Association should attend these meetings.

Dr. Bregant reported that there had been some discussion as to where the HSA Headquarters for Area II will be located. He reported that there is a chance that the HSA Board in Area II would have two M.D.s and one D.O. Dr. Bregant reported that the Mid-Missouri PSRO is in a position to go conditional.

Dr. Allen pointed out that there was a national campaign to have the members of HSAs appointed not elected, but that in Area II at least the providers would be selected by their own groups.

District #6—Dr. Bradshaw stated that his District has the same problems and concerns that have been expressed by several other Councilors.

District #7—Dr. McCanse reported that an HMO for the Kansas City area had been federally funded and should begin operation within a two-year time frame.

The Jackson, Clay and Platte county medical societies will have a Legislative Breakfast on December 20. The members of these three medical societies will meet with their local legislators to discuss the malpractice situation and the MSMA Legislative program for the coming year.

Dr. McCanse reported that Dr. Don Blim, President of Northwest Missouri PSRO Board of Directors, has written a letter to Dr. Clement Grebel, Chairman of the Board of Directors of the Mo. PSRO Support Center, which indicated that "it is the intention of Northwest Mo/PSRO to

(Continued on page 98)

KAY CIEL®
(potassium chloride)
ELIXIR
10%

DESCRIPTION:

Each 15 ml. (tablespoonful) contains:
Potassium Chloride 1.5 g.
(supplying 20 meq.)
Alcohol 4%
in a palatable base. Contains no sugar.

INDICATIONS: Treatment and prevention of potassium deficiency occurring especially during thiazide diuretic or corticosteroid therapy, digitalis intoxication, low dietary intake of potassium, result of excessive vomiting and diarrhea and for correction of associated hypochloremic alkalosis.

CONTRAINDICATIONS: Impaired renal function, untreated Addison's Disease, dehydration, heat cramps and hyperkalemia.

WARNINGS: Do not use excessively.

PRECAUTIONS: Administer with caution and adjust to the requirements of the individual patient. The patient should be observed frequently and periodic ECG and/or plasma potassium level determined. Use with caution in patients with cardiac disease. In hypokalemia, attention should be directed toward the correction of the frequently associated hypochloremic alkalosis. **Patients should be cautioned to adhere to dilution instructions.**

ADVERSE REACTIONS: Potassium intoxication indicated by weakness, mental confusion, paresthesia of the extremities, numbness of the legs, flaccid paralysis, fall in blood pressure, depression, arrhythmias, arrest and heartblock. Vomiting, abdominal discomfort and diarrhea may occur.

DOSAGE AND ADMINISTRATION: *Elixir:* One tablespoonful (15 ml. supplying 20 meq.) **diluted** in 4 ounces of water or fruit juice twice daily (preferably after a meal), or as directed by physician. *Powder:* Contents of 1 packet dissolved in 4 ounces of water or fruit juice twice daily (preferably after a meal), or as directed by physician.

OVERDOSAGE: In case of excessive use resulting in hyperkalemia or potassium intoxication, discontinue use of potassium and administer or take other steps to lower serum levels if indicated.

HOW SUPPLIED: *Elixir:* In bottles of: 473 ml. (16 fl. oz.)

...NDC 0041-0143-16. 3785 ml. (128 fl. oz.)...NDC 0041-0143-16

Powder: In boxes of: 30 *Solodose* packets...NDC 0041-0143-16

Cooper

Cooper Laboratories, Inc.
Wayne, New Jersey 07470

h oho esoh to ecalp-gnitser lanif a sa, diel taht fo noitrop a et acided pot emohic evah. Irudne gonl nac detacided os dna devienoc os noitan yna ro noitan taht rehte gnitset raw, livic taerg a ni degagne era ew won.

Potassium chloride is preferred to other salts of potassium since, in most hypochloremic states, hypochloremia is also present and chloride ion is needed to allow complete potassium replacement.¹

da yldon os raf suht evah ereh. Thguof oho yeht heihc krow edosinif nu eht ot ereh detacided eb. Ot rehtar gnilv os si ti, ereh did ydeht taw tegrof reven nac ereh yas ew tahw rebmember gnol ron, eton eltitis dlow eht tearted.

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In general, the chloride is preferable because of participation of chloride in the renal conservation of potassium.²

h oho esoh to ecalp-gnitser lanif a sa, diel taht fo noitrop a et acided pot emohic evah. Irudne gonl nac detacided os dna devienoc os noitan yna ro noitan taht rehte gnitset raw, livic taerg a ni degagne era ew won.

Lauqe detaere era nem lla taht noit isoporp eht ot detacided nda ytrebil ew devienoc, noitan wen a thenitnoc no htruofthgourb srehtaf ruo oga. Sraey neves dna eroesruof, htrar et morf hsiere ton llahs elps eht rof, elpoept eht yb, elpoept et fo nemnrevog taht dna—modeerf fo htrih wen ewah llahs rednu—noitan taht niav.

Ni deid evah ton llahs daed escht taht evloser ylhgir eb noitaved fo erusaem lluf tasl eht evag yeht heihw orf esuae taht eht ot eesaereri akas ew daed deronoh escht.

Morf that su erofed gniinamer kast taerg eht ot detacided erew eb ot su orf rehtar si to deenavda yldon os raf suht evah ereh.

Thguof oho yeht heihc krow edosinif nu eht ot ereh detacided eb. Ot rehtar gnilv os si ti, ereh did ydeht taw tegrof reven nac ereh yas ew tahw rebmember gnol ron, eton eltitis dlow eht tearted.

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Re dda ot rewop roop ruo veoba raf, ti detacided evah ereh delggurth. Dna gnilv nem evab eht dnuard sint wollah tonnac, ew eesaereri akas ew daed deronoh escht.

Gnitif rehtegotla is iti evil thgim noitta taht sevil rieht evag ereh ohow esoh to ecalp-gnitser lanif a sa, diel taht fo noitrop a et acided pot emohic evah. Irudne gonl nac detacided os dna devienoc os noitan yna ro noitan taht rehte gnitset raw, livic taerg a ni degagne era ew won.

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erem ekas ew daed deronoh escht.

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"If potassium depletion is accompanied by a deficit of chloride, it may be quite difficult to correct that deficit and dissipate the alkalosis unless adequate quantities of chloride are made available."³

Ereh oho esoh to ecalp-gnitser lanif a sa, diel taht fo noitrop a et acided pot emohic evah. Irudne gonl nac detacided os dna devienoc os noitan yna ro noitan taht rehte gnitset raw, livic taerg a ni degagne era ew won.

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Morf that su erofed gniinamer kast taerg eht ot detacided erew eb ot su orf rehtar si to deenavda yldon os raf suht evah ereh.

We have it on best authority...

KAY CIEL® Elixir

(potassium chloride) 10%

Replaces more than just potassium

1. AMA Drug Evaluations, ed. 2, Publishing Sciences Group, Inc., Acton, Mass., 1973, p. 184.
2. Sandstead, H., in Wintrobe, M.M. et al. (Eds.): Harrison's Principles of Internal Medicine, ed. 7, New

- York, McGraw-Hill Book Company, 1974, p. 441.
3. Welt, L.G., in Goodman, L.S., and Gilman, A. (Eds.): The Pharmacological Basis of Therapeutics, ed. 4, New York, The Macmillan Company, 1970, pp. 798-799.

Please see full prescribing information on opposite page.



Also available!
KAY CIEL® Powder
Solodose®
(potassium chloride 1.5 g.)
Each convenient packet
containing 20 meq. KCl



Testing in Humans: Who, Where & When.

weight of ethical opinion:

ew would disagree that the effectiveness and safety of any therapeutic agent or device must be determined through clinical research.

ut now the *practice* of clinical research is under appraisal by Congress, the media and the general public. Who shall administer it? On whom are the products tested? Under what circumstances? How shall results be evaluated and used?

he Pharmaceutical Manufacturers Association represents firms that are significantly engaged in the discovery and development of new medicines, medical devices and diagnostic products. Clinical research is essential to their efforts. Consequently, PMA formulated positions on it submitted on July 11, 1975, to the Subcommittee on Health of the Senate Labor and Public Welfare Committee, as official policy recommendations. These are the essentials of PMA's current thinking in this vital area.

• PMA supports the mandate and mission of the National Commission for the Protection of Human Subjects of Medical and Behavioral Research and to establish a special committee composed of experts of appropriate disciplines familiar with the industry's research methodology to volunteer its advice to the Commission.

• PMA supports the formation of an independent, expert, broadly based and representative panel to assess the current state of drug innovation and the impact of existing laws, regulations and procedures.

• When FDA proposes regulations, it should prepare and publish in the *Federal Register* a detailed statement assessing the impact of those regulations on research and device innovation.

• PMA proposes that an appropriately qualified medical organization be charged to undertake a comprehensive study of the optimum roles and responsibilities of the sponsor and physician when company-sponsored clinical research is performed by independent clinical investigators.

5. PMA recognizes that the physician-investigator has, and should have, the ultimate responsibility for deciding the substance and form of the informed consent to be obtained. However, PMA recommends that the sponsor of the experiment aid the investigator in discharging this important responsibility by providing (1) a document detailing the investigator's responsibilities under FDA regulations with regard to patient consent, and (2) a written description of the relevant facts about the investigational item to be studied, in comprehensible lay language.

6. In the case of children, the sponsor must require that informed consent be obtained from a legally appropriate representative of the participant. Voluntary consent of an older child, who may be capable of understanding, in addition to that of a parent, guardian or other legally responsible person, is advisable. Safety of the drug or device shall have been assessed in adult populations prior to use in children.

7. PMA endorses the general principle that, in the case of the mentally infirm, consent should be sought from both an understanding subject and from a parent or guardian, or in their absence, another legally responsible person.

8. Pharmaceutical manufacturers sponsoring investigations in prisons must take all reasonable care to assure that the facilities and personnel used in the conduct of the investigations are suitable for the protection of participants, and for the avoidance of coercion, with a respect for basic humanitarian principles.

9. Sponsors intending to conduct non-therapeutic clinical trials through the participation of employee volunteers should expand the membership and scope of its existing Medical Research Committee, or establish such an internal Medical Research Committee, with responsibility to approve the consent forms of all volunteers, designs, protocols and the scope of the trial. The Committee should also bear responsibility to ensure full compliance with all procedures intended to protect employee volunteers' rights.

10. Where the sponsor obtains medical information or data on individuals, it shall be accorded the same confidential

status as provided in codes of ethics governing health care professionals.

11. PMA and its member firms accept responsibility to aid and encourage appropriate follow-up of human subjects who have received investigational products that cause latent toxicity in animals or, during their use in clinical investigation, are found to cause unexpected and serious adverse effects.

12. PMA supports the exploration and development by its member companies of more systematic surveillance procedures for newly marketed products.

13. When a pharmaceutical manufacturer concludes, on the basis of early clinical trials of a basic new agent, that a new drug application is likely to be submitted, a proposed development plan accompanied by a summary of existing data, would be submitted to the FDA. Following a review of this submission, the FDA, and its Advisory Committee where appropriate, would meet with the sponsor to discuss the development plan. No *formal* FDA approval should be required at this stage. Rather, the emphasis should be on identification of potential problems and questions for the sponsor's further study and resolution as the program develops.

The PMA believes that health professionals as well as the public at large should be made aware of these 13 points in its Policy on Clinical Research. For these recommendations envisage constructive, cooperative action by industry, research institutions, the health professions and government to encourage creative and workable responses to issues involved in the clinical investigation of new products.



Pharmaceutical Manufacturers Association
1155 Fifteenth Street, N.W.
Washington, D. C. 20005

medical melange

Notes of interest from Here

. . . .

and There

Dr. Ray G. Cowley has been appointed medical director of the Missouri State Chest Hospital in Mt. Vernon. The announcement was made by **Dr. Herbert R. Domke**, director of the Missouri Division of Health. Dr. Cowley is a pulmonary disease specialist with 27 years experience in hospital medical services and as an instructor in internal medicine and pulmonary disease medicine. He served on the medical staff of the Missouri Chest Hospital from 1970 to mid-1972. During the past three and one half years, he has worked for the Utah State Division of Health as director of the Southeastern Utah Health District with offices at Price.

Dr. H. E. Petersen, a pediatrician, is retiring after practicing in St. Joseph for 42 years. Dr. Petersen served as President of Buchanan County Medical Society in 1948 and was President of the Missouri State Medical Association in 1954-1955. While President of Buchanan County Medical Society, he also served as Councilor for the MSMA First District, an office to which he was reelected. He was the second chairman of the Missouri Chapter, American Academy of Pediatrics. For more than 30 years, he was the physician in charge of a well-baby clinic in St. Joseph and served the Noyes Home for Children throughout his practice. Dr. Petersen is noted for his leadership contributions to numerous civic and health-related organizations in St. Joseph.

Dr. William D. Soper, Liberty, has been appointed associate college physician at William Jewell College. Dr. Soper has been in family practice in Liberty since August, 1974. He is Vice-President of Clay County Medical Society and a member of the executive committee of Liberty Hospital. **Dr. Richard P. Bowles** is the college physician.

Dr. F. R. Crouch, who has practiced medicine in Farmington since 1938, was honored on January 19 by the Farmington Chamber of Commerce at its annual banquet. He received a special award citing his contributions to the community. Well-known throughout the area, Dr. Crouch was joined in 1946 by two other physicians and the trio became part of the first rural clinic or group practice in Missouri. A feature story in the *Farmington Press* states, "Besides his 'official' work in his profession and his volunteer duties, Dr. Crouch has contributed to the community in a thousand ways that stemmed from his sensitivity to the needs of others, his thoughtfulness, his Christian attitudes and his pride in his community and work."

Dr. Lawrence I. Kahn has been reelected president of the St. Louis Regional Maternal and Child Health Council. Dr. Kahn has served as president since the Council was founded in June, 1974. He is from the Division of Health Care Research, Washington University School of Medicine.

Dr. John W. Koehler has been elected to the board of directors of the St. John's Medical Center of Joplin. He succeeds **Dr. Ned B. Chase** in this position. —**Dr. George R. Schoedinger, III** has been elected president and chief of staff of the 300-member medical staff of Missouri Baptist Hospital in St. Louis. He succeeds **Dr. Charles C. Norland**.

**12-hour claims
are nothing new.**

**12-hour
relief is.**



NEW

Novafed A[®] Capsules

Each capsule contains pseudo-
ephedrine hydrochloride 120 mg. and
chlorpheniramine maleate 8 mg.

Controlled-Release Decongestant Plus Antihistamine

It goes the distance.



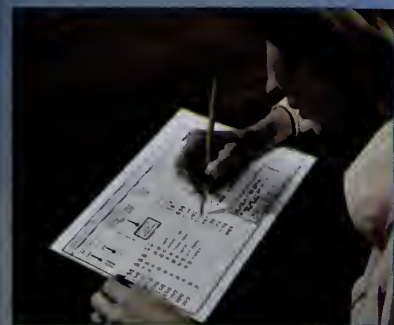
Clinical studies confirm full 12-hour effectiveness.

For years, patients have heard of drugs providing long-lasting relief. But after six or eight hours, they often run out of relief. And it's too soon to take the next dose.

Now, with Novafed A, Dow introduces a prescription capsule with 12-hour effectiveness in relieving allergy and hay fever symptoms. Placebo-controlled clinical studies show that the high level of decongestant in Novafed A provides relief for as long as 12 hours. At the same time, its antihistamine relieves the patient's itchy eyes and runny nose *without* the excessive dryness of anticholinergic agents.

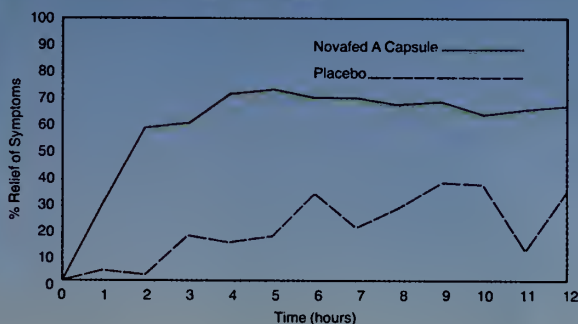
Prompt onset of effect is followed by full 12-hour relief.

(Please refer to the following page for bioavailability studies and prescribing information.)



Patients with severe pollen allergies were tested during hay fever season in a countryside environment and asked to rate severity of five different symptoms on a scale of 1 to 4.

Clinical Study: Degree of Relief from Itchy Eyes and Nose and Throat, Watery Eyes, Runny Nose*



*Unpublished data, Medical Department Files, Dow Pharmaceuticals, The Dow Chemical Company, Indianapolis, Indiana.

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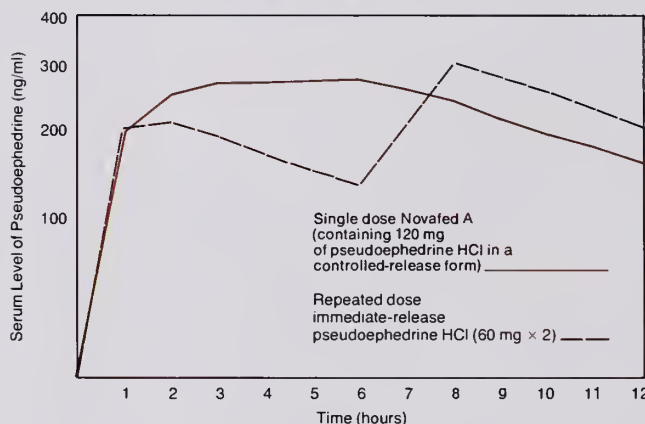
A bioavailability study confirmed that the sustained 12-hour action of Novafed A was comparable to that of immediate-release medication taken at 6-hour intervals.

The chart at the left shows the serum levels of pseudoephedrine. Initial serum levels following one Novafed A Capsule were comparable to those following a single dose of 60 mg. pseudoephedrine hydrochloride in an immediate-release form. Serum levels of pseudoephedrine over a 12-hour period following a single dose of Novafed A were also comparable to

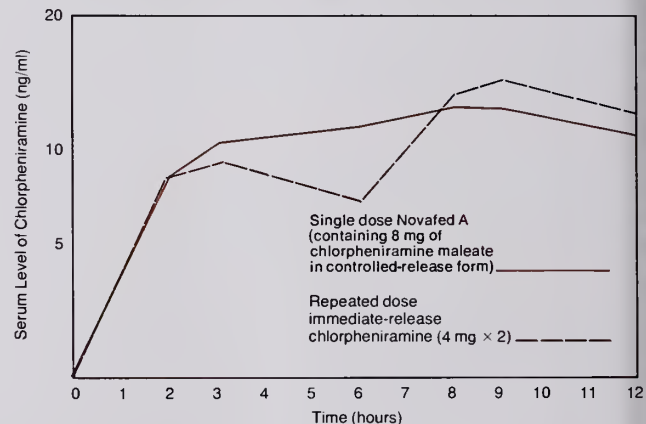
those obtained by an immediate-release form taken every 6 hours.

The chart at the right shows the serum levels of chlorpheniramine. Initial serum levels following one Novafed A Capsule were comparable to those following a single dose of 4 mg. chlorpheniramine maleate in an immediate-release form. Serum levels of chlorpheniramine over a 12-hour period following a single dose of Novafed A were also comparable to those obtained by an immediate-release form taken every 6 hours.

Comparison of Mean Serum Levels of Pseudoephedrine Following Novafed A and an Immediate-Release Reference Formulation*



Comparison of Mean Serum Levels of Chlorpheniramine Following Novafed A and an Immediate-Release Reference Formulation*



*Unpublished data, Medical Department Files, Dow Pharmaceuticals, The Dow Chemical Company, Indianapolis, Indiana.

DESCRIPTION: Each NOVAFED A capsule contains 120 mg. of pseudoephedrine hydrochloride and 8 mg. of chlorpheniramine maleate. The specially formulated pellets in each capsule are designed to provide continuous therapeutic effect for about 12 hours. Nearly one-half of the active ingredients is released soon after administration and the remainder is released slowly over the remaining time period.

ACTIONS: NOVAFED A combines the action of a nasal decongestant, pseudoephedrine hydrochloride, and an antihistamine, chlorpheniramine maleate. These ingredients are combined to provide prompt and sustained nasal and upper respiratory decongestant and antihistaminic action.

INDICATIONS: NOVAFED A is indicated for the relief of nasal congestion and eustachian tube congestion associated with the common cold, sinusitis and acute upper respiratory infections. It is also indicated for perennial and seasonal allergic rhinitis, vasomotor rhinitis, allergic conjunctivitis due to inhalant allergens and foods and for mild, uncomplicated allergic skin manifestations of urticaria and angioedema. Decongestants in combination with antihistamines have been used for many years to relieve eustachian tube congestion associated with acute eustachian salpingitis, aerotitis media, acute otitis media and serous otitis media. NOVAFED A may be given concurrently, when indicated, with analgesics and antibiotics.

CONTRAINDICATIONS: Sympathomimetic amines are contraindicated in patients with severe hypertension, severe coronary artery disease, and in patients on MAO inhibitor therapy. Antihistamines are contraindicated in patients with narrow-angle glaucoma, urinary retention, peptic ulcer, during an asthmatic attack, and in patients receiving MAO inhibitors.

Children under 12: NOVAFED A controlled-release capsules should not be used in children less than 12 years of age.

Nursing Mothers: Pseudoephedrine is contraindicated in nursing mothers because of the higher than usual risk for infants from sympathomimetic amines.

Hypersensitivity: This drug is contraindicated in patients with hypersensitivity or idiosyncrasy to sympathomimetic amines or antihistamines. Patient idiosyncrasy to adrenergic agents may be manifested by insomnia, dizziness, weakness, tremor or arrhythmias.

WARNINGS: Sympathomimetic amines should be used judiciously and sparingly in patients with hypertension, diabetes mellitus, ischemic heart disease, increased intraocular pressure, hyperthyroidism, or prostatic hypertrophy. Sympathomimetics may produce central nervous system stimulation and convulsions or cardiovascular collapse with accompanying hypotension.

Antihistamines may impair mental and physical abilities required for the performance of potentially hazardous tasks, such as driving a vehicle or operating machinery, and mental alertness in children. Chlorpheniramine maleate has an atropine-like action and should be used with caution in patients with increased intraocular pressure, hyperthyroidism, cardiovascular disease, hypertension or in patients with a history of bronchial asthma.

Do not exceed recommended dosage.

Use in Pregnancy: The safety of pseudoephedrine for use during pregnancy has not been established.

Use in Elderly: The elderly (60 years and older) are more likely to have adverse reaction to sympathomimetics. Overdosage of sympathomimetics in this age group may cause hallucinations, convulsions, CNS depression, and death. Therefore, safe use of a short-acting sympathomimetic should be demonstrated in the individual elderly patient before considering the use of a sustained-action formulation.

PRECAUTIONS: This drug should be used with caution in patients with diabetes, hypertension, cardiovascular disease and hyperreactivity to epinephrine. The antihistaminic may cause drowsiness and ambulatory patients who operate machinery or motor vehicles should be cautioned accordingly.

ADVERSE REACTIONS: Hyperreactive individuals may display epinephrine-like reactions such as tachycardia, palpitations, headache, dizziness, or nausea. Patients sensitive to antihistamines may experience mild sedation.

Sympathomimetic drugs have been associated with certain untoward reactions including fear, anxiety, tenseness, restlessness, tremor, weakness, pallor, respiratory difficulty, dysuria, insomnia, hallucinations, convulsions, CNS depression, arrhythmias, and cardiovascular collapse with hypotension.

Possible side effects of antihistamines are drowsiness, restlessness, dizziness, weakness, dry mouth, anorexia, nausea, headache and nervousness, blurring of vision, heartburn, dysuria and very rarely, dermatitis.

DRUG INTERACTIONS: MAO inhibitors and beta adrenergic blockers increase the effect of sympathomimetics. Sympathomimetics may reduce the antihypertensive effects of methyldopa, mecamylamine, reserpine and veratrum alkaloids. Concomitant use of antihistamines with alcohol, tricyclic antidepressants, barbiturates and other central nervous system depressants may have an additive effect.

DOSAGE AND ADMINISTRATION: One capsule every 12 hours. Do not give to children under 12 years of age.

CAUTION: Federal law prohibits dispensing without prescription.

HOW SUPPLIED: NOVAFED A is supplied in red and orange colored hard gelatin capsules, monogrammed with the Dow diamond followed by the number 109, in bottles of 100.



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WASHINGTON

President Ford's all-out attack against rising government spending sustained a major blow with the Congressional override of his veto of a \$45 billion health, welfare and labor bill.

The vetoed bill called for \$1 billion more than the Administration's budget request and required hiring of 8,000 more Health, Education and Welfare Department employees. Almost \$800 million of the increase involves health programs which would receive a total of \$3.9 billion for the fiscal year that ends on September 30.

Both houses of Congress exceeded the two-thirds vote necessary to override a veto. The tally was 310 to 113 in the House; 10 to 24 in the Senate.

The Administration defeat came despite a last-minute administration offer to compromise by more or less splitting the difference for a \$500 million increase.

Ford had said in his veto message the bill was "a classic example of unchecked spending." But Democrats charged the money measure would cut spending below last year's level and not meet inflation-caused increases.

The bill provides more funds for such programs as Community Mental Health Services, Maternal and Child Health, medical research, Alcoholism and Drug Abuse Facilities, Emergency Medical Services and education of health professionals.

The Congressional vote was preceded by all-out efforts on both sides to line up votes and by vigorous lobbying from affected outside groups.

The HEW money bill is considered the hardest to vote against in Congress because of the multitude of popular programs funded. Asked how the House was able to muster such a vote to override including dissident Republicans, House Majority Leader, Thomas O'Neill, Jr., (D-Mass.) replied simply, "the coming election."

The Administration has opposed a specific extension of the program of federal aid to states and localities to demonstrate ways of improving emergency medical services.

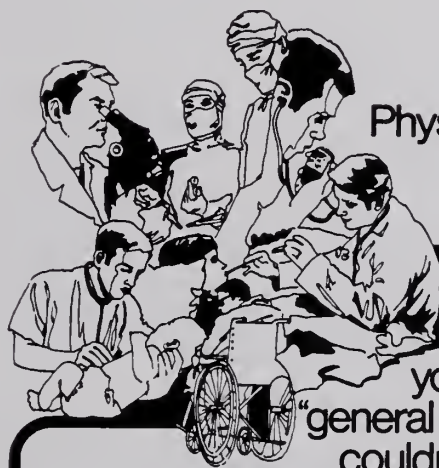
Testifying before the Senate Health Subcommittee, Theodore Cooper, M.D., Assistant Secretary for Health, said such assistance could be handled in the future under the Administration's proposed

block-grant plan to consolidate 16 existing categorical programs.

The so-called "Financial Assistance for Health Care Act" will give states and localities "the discretion to continue funding according to individual state priorities," Dr. Cooper testified.

Legislation before the Senate to extend the program at costs ranging from \$270 million to \$416 million are "far in excess" of what is required to demonstrate effective systems for emergency medical services, said Dr. Cooper.

He told the Subcommittee, headed by Sen. Edward Kennedy (D-Mass.), that the HEW Department already has ample research authority to carry out improvements in emergency services.



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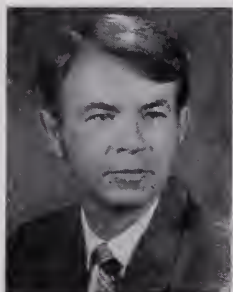
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From the Medical Schools



UNIVERSITY OF MISSOURI-COLUMBIA

Dr. William D. Bradshaw, a 1952 graduate of the two-year Medical School, has been named medical director of the University's continuing education program for health professionals.



Dr. Bradshaw

Dr. Bradshaw received his M.D. degree from the University of Kansas and has been a long-time practitioner in Clinton. He is a former mayor of that community.

Dr. Bradshaw helped develop the Family Practice program at UMC. He has been active in the affairs of the Missouri State Medical Association and has served as Councilor for the Sixth District since 1969. One of his goals is to strengthen the relationship between the school and the state's rural areas by increasing consultative services.

A gift of \$5,000 has come to the Rusk Rehabilitation Center through a Philadelphian who is a friend and patient of *Dr. Howard A. Rusk* in New York. *Dr. Charles R. Peterson*, chairman of physical medicine and rehabilitation, reported that the patient, a stroke victim who was treated at the Rehabilitation Institute of New York which is directed by Dr. Rusk, expressed his gratitude by making a donation to the Center in Columbia.

WASHINGTON UNIVERSITY

Jurgen Frolich, M.D., assistant professor of pharmacology at Vanderbilt University, presented a lecture entitled "Renin and Prostaglandins" on February 11.

The lecture honors the late William N. Creasy, president of the Burroughs Wellcome Co., pharmaceutical manufacturers, from 1945 to 1968. During his lifetime, Mr. Creasy contributed to the development of clinical pharmacology and to the encouragement of many working in the field.

The president of the American Occupational Therapy Association (AOTA) has been named to direct the Occupational Therapy Program at the School of Medicine. *Jerry A. Johnson*, Ed.D., O.T.R., will join the faculty on July 1, 1976. She

is currently professor and director of Graduate Studies at Colorado State University, Fort Collins.

Philip Needleman, Ph.D., professor of pharmacology at Washington University School of Medicine, has been named chairman of the Department of Pharmacology effective July 1.

Dr. Needleman will succeed *Oliver H. Lowry*, M.D., Ph.D., who will retire from his administrative duties but continue as professor of pharmacology.

Dr. Needleman's major research interest has been in the area of vasoactive hormone biosynthesis and the regulation of renal-cardiovascular function. He is the author of more than 60 papers.

ST. LOUIS UNIVERSITY

Arthur E. McElfresh, Jr., M.D., professor of pediatrics and chairman, Department of Pediatrics, recently completed a six-month sabbatical as a visiting professor in pediatrics at Central University in Caracas, Venezuela. He worked at the Central University Hospital and Central Blood Bank, which serves 13 municipal hospitals in the Caracas area.

Raymond G. Slavin, M.D., director of the Section of Allergy and Immunology, was the guest speaker at the St. Louis Dietetic Association meeting and the Georgia State Medical Association meeting recently. At the Dietetic Association meeting, he spoke on "The Diagnosis and Management of Food Allergy." His topics for the Georgia State Medical Association were "Allergic Aspergillosis" and "Immunologic Basis of Lung Disease."

Dr. Slavin also was a visiting lecturer at the Walter Reed Army Medical Center in Washington, D. C. and a visiting professor at Brooke Army Medical Center in San Antonio, Tex.

Stephen M. Ayres, M.D., chairman of the Department of Internal Medicine, was the guest speaker at the John J. Hammond Cardiology Lectureship of St. John's Mercy Medical Center in St. Louis.

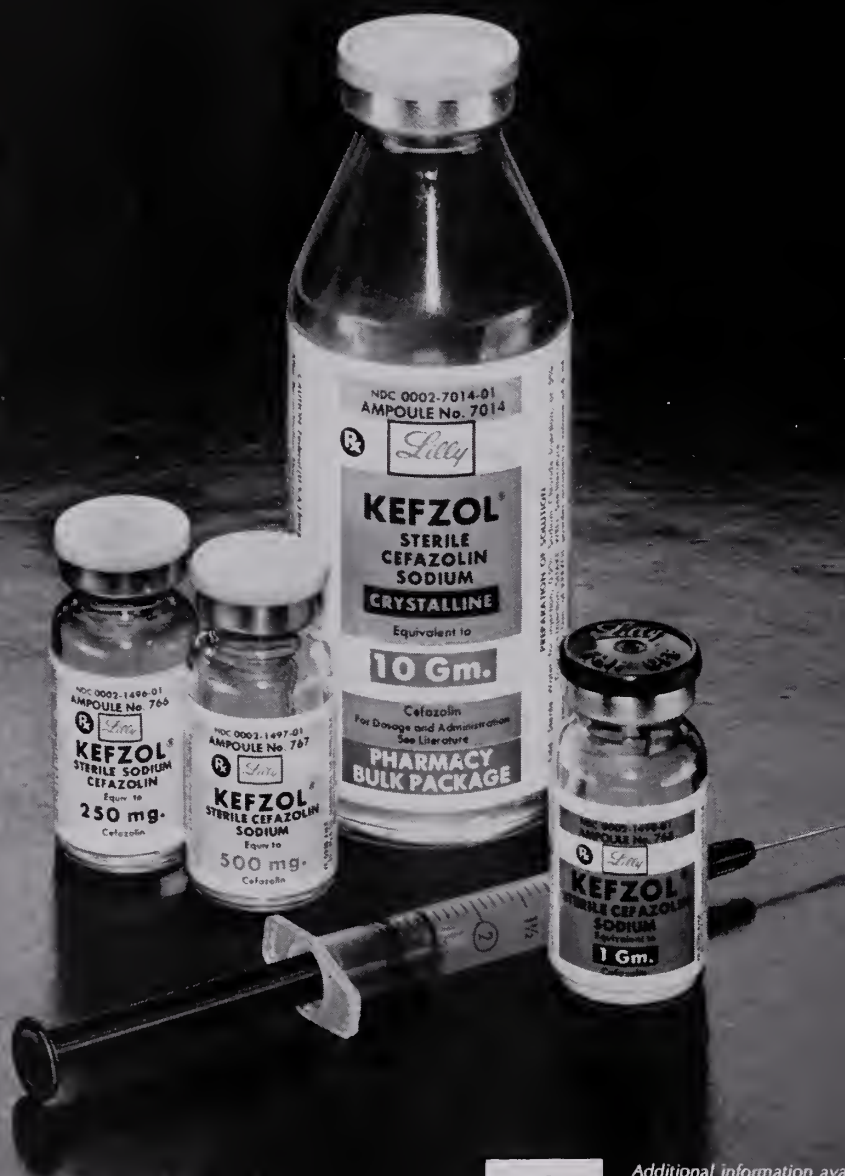
Dr. Ayres, former professor of medicine at the University of Massachusetts and chief of the Department of Medicine at St. Vincent Hospital in Worcester, Mass. spoke on "Critical Care Concept: Applied Cardiopulmonary Physiology."

Continuing Education Coming Events

- | | |
|-------------|---|
| Feb. 20-21 | The Long Weekend—Cancer Management and Anemia
MU-KC School of Medicine
Crown Center Hotel, Kansas City |
| March 1-2 | Symposium: Emergency Medicine—The First 90 Minutes
Division of Continuing Medical Education
K.U. Medical Center, Kansas City, Kan. |
| March 4-5 | Course in Clinical Endocrinology
Washington U. School of Medicine
St. Louis |
| March 8 | City-Wide Radiology Conference: Diagnostic Aspects of Therapeutic Radiology
Mallinckrodt Institute of Radiology
Washington U. School of Medicine, St. Louis |
| March 10-12 | Symposium: Pediatrics
Division of Continuing Medical Education
K.U. Medical Center, Kansas City, Kan. |
| March 22-23 | Symposium: Surgery
Division of Continuing Education
K.U. Medical Center, Kansas City, Kan. |
| April 5-6 | 22nd Annual Urology Seminar
Continuing Medical Education
MU-Columbia School of Medicine
To be held in Kansas City |
| April 5-7 | Symposium: Ophthalmology-Glaucoma
Division of Continuing Education
K.U. Medical Center, Kansas City, Kan. |
| April 7 | Seminar: Workup and Treatment of Hypertension
Ed Bixby Institute for Postgraduate Medical Education
Research Medical Center, Kansas City |
| April 9-10 | The Long Weekend—Clinical Cardiology and Physical Examination of the Heart
MU-KU School of Medicine
Crown Center Hotel, Kansas City |
| April 12 | City-Wide Radiology Conference: Pulmonary Embolism
Mallinckrodt Institute of Radiology
Washington U. School of Medicine, St. Louis |
| April 20-21 | Conference: Clinical Approach to Allergic Disorders
St. Louis U. School of Medicine and Regional Medical
Education Center of Veterans Administration Hospital
Sesquicentennial Room, Busch Memorial Center, St. Louis |
| April 21-22 | Symposium: Family Practice
Division of Continuing Education
K.U. Medical Center, Kansas City, Kan. |
| April 22-23 | Eighth Annual Matt Weis Symposium: New Concepts in Obstetrics and Gynecology
St. John's Mercy Medical Center, St. Louis |

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Missouri Medicine

JOURNAL OF THE MISSOURI STATE MEDICAL ASSOCIATION

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JOE A. PINKERTON, JR., M.D., DENNIS FOWLER, M.D.
and DAVID FORTIN, M.D., *Kansas City*

Radiation Injury of the Axillary Artery

Case Report

RADIATION THERAPY is widely used in the treatment of neoplastic disease, and its beneficial effects have justified its continued use in spite of recognized complications. Both the benefits and the complications of radiotherapy are related to its effects on arterioles and capillaries.¹ The larger muscular arteries are less sensitive to irradiation but are not exempt from radiation injury. This paper reports the management of a patient with axillary artery occlusion as a result of radiotherapy following radical mastectomy for carcinoma of the breast.

This patient represents the fourth case of axillary artery injury caused by radiotherapy following surgery for carcinoma of the breast and the second case in which reconstructive arterial surgery has been used. The radiation-induced pathologic changes responsible for arterial occlusion are slowly progressive over many years. Patients with carcinoma of the breast who have received radiotherapy to the axilla are at risk for the insidious development of this problem which warrants consideration in long term follow-up.

CASE REPORT

This 75-year-old white woman was admitted to St. Luke's Hospital of Kansas City with pain and necrosis of the tip of the left fourth digit of three weeks duration. This change had been preceded for several weeks by a deep rubor of the left hand which had been most pro-

nounced when the hand was in the dependent position. The patient had undergone radical mastectomy in 1948 for carcinoma of the left breast. One of seven lymph nodes removed at that time contained metastatic carcinoma and, consequently, the patient received "heavy" irradiation of the left axilla when 250-KV radiotherapy equipment was used. By 1956, radiation necrosis of the skin over the left axilla resulted in the development of an area of ulceration which required a pedicle skin graft from the abdomen for reconstruction. At that time, edema of the left arm and weakness of the musculature of the forearm and hand, also presumably related to the radiotherapy, had developed. Her hand and arm had otherwise been asymptomatic until the onset of ischemic symptoms which led to this hospitalization. Her past history included mild hypertension and resection of a meningioma of the thoracic spinal cord.

The patient in this case report represents the fourth in whom axillary artery injury was caused by postmastectomy radiotherapy and the second in whom arterial reconstruction has been used. The course and management of the patient are described. All postmastectomy patients who received radiotherapy warrant careful evaluation since this lesion typically has an insidious onset many years after radiotherapy. The authors are from the departments of surgery and radiology, St. Luke's Hospital.



Fig. 1 (A) Subclavian arteriogram demonstrates a long cylindrical narrowing of the distal left subclavian and proximal axillary artery. Severe stenosis of the distal axillary artery immediately proximal to the point of complete oc-



clusion is also seen. (B) Patency of the brachial artery and run-off bed distal to the occluded axillary artery is demonstrated by way of collateral flow through the circumflex humeral vessels.

Examination of the left upper extremity revealed a full thickness pedicle graft covering the left axilla and surgical absence of the left breast. There was atrophy of the musculature of the forearm and hand. The skin over the tip of the left fourth finger was black with a deep rubor proximal to the frank gangrene. The skin of the left hand was thin, atrophic, shiny and cooler than that of the right hand. A prominent pulse could be felt in the left subclavian artery above the clavicle, but no pulse was palpable distal to this point. The left arm was moderately lymphedematous. Systolic blood pressure as determined by the Doppler ultrasonic flow detector was 145 mm Hg in the right radial artery and 70 mm Hg in the left radial artery. There was no evidence of recurrent or metastatic breast cancer.

A left subclavian arteriogram via the transfemoral route demonstrated diffuse narrowing of the distal subclavian and proximal axillary artery with complete occlusion of the distal axillary artery (Fig. 1A). Patency of the brachial artery and run-off bed distal to the occlusion was demonstrated (Fig. 1B).

Arterial flow to the left arm was reconstituted with a bypass graft around the occluded left axillary artery. The proximal anastomosis was constructed to the subclavian artery through a supra-clavicular incision. The graft was tunneled with blunt finger dissection beneath the left clavicle and the pedicle skin graft overlying the left axilla and anastomosed to the brachial artery. A saphenous vein graft was used, but it required removal of a segment from both legs and anastomosis of the two segments to provide adequate vein length. Initial graft function was excellent with a strong left radial pulse and hyperemia of the skin of the left hand. Graft thrombosis occurred eight hours postoperatively. Graft thrombectomy and resection of the medial two thirds of the left clavicle, which appeared to compress the vein graft, resulted in 12 hours of patency. Thrombosis recurred and was managed by replacing the vein graft with a Bovine heterograft. This has remained patent for six months and the severe ischemic changes in the left hand have cleared.

A slight increase in the edema of the left arm has been observed, apparently as a result of the improved arterial flow.

DISCUSSION

The mechanism of radiation injury of large muscular arteries is complex and related to a specific radiation effect on the components of the arterial wall. The gross and microscopic changes in muscular arteries in experimental animals have been studied and detailed in excellent reports by Sams,² Lindsay *et al*,³ Smith⁴ and Asscher *et al*.⁵ Endothelial changes are of greater significance in smaller arteries with a smaller intraluminal diameter. Injury to the internal elastic membrane results in its disruption and is felt to be related to the accelerated atherogenesis noted in irradiated arteries by Lindsay *et al*.³ Radiation causes fibrosis of the adventitia and surrounding tissues and results in extramural constriction which is slowly progressive in its occlusive effect.¹ Smith⁴ documented changes in the vasa vasorum which contribute to the arterial wall injury. Asscher, *et al*⁵ found that experimentally induced hypertension resulted in a more severe radiation injury in the arteries of rats. The pathological changes noted in experimental animals also have been seen in the microscopic study of irradiated human arteries.⁵

Clinical manifestations of radiation injury to a large muscular artery may appear early or late. The early manifestations appear when the radiotherapy is complicated by other factors, such as necrosis and infection of the overlying tissues or necrosis of neoplastic tissue infiltrating the vessel wall. Classic early manifestations are rupture of

the carotid artery after skin flap necrosis following radical neck dissection or the development of aorto-esophageal fistula in the early period after irradiation of carcinoma of the esophagus which has invaded the aortic wall. In the absence of complicating factors, clinical evidence of radiation injury is often delayed many years, as illustrated by this case report. This delayed effect is related to the slowly progressive pathologic changes caused by the radiotherapy. The clinical manifestations may ultimately result in severe ischemic changes which threaten the viability of the tissue supplied by the artery. These changes may be more severe than seen with other causes of arterial occlusion because of concomitant injury to the adjacent arterial bed which would serve as collateral pathways. Prophylactic arterial reconstruction has limited use in vascular surgery, but it may be useful in this situation in which the potential for development of collateral flow is limited. Anticipation of this problem and careful follow-up evaluation of all patients who have received postmastectomy irradiation is encouraged.

Three cases of subclavian axillary artery injury related to postoperative radiotherapy following radical mastectomy for carcinoma of the breast have previously been reported. Two of these cases became clinically evident 11 and 26 years postoperatively and both were associated with severe skin reaction.⁷ Arteriography demonstrated a patent distal vascular bed in one patient in whom successful reconstruction was possible with a saphenous vein graft. The second patient did not undergo arterial reconstruction. The third patient presented three years postoperatively with symptoms which were considered too mild to warrant arterial reconstruction.² The arterial lesion was documented with arteriography in all three cases. The earlier techniques of radiotherapy responsible for the axillary artery injury in all three patients mentioned above have been associated with a severe injury to overlying skin. Newer megavoltage techniques of radiotherapy may be associated with arterial injuries in the absence of significant cutaneous changes.

Arterial reconstruction usually will require bypass graft techniques because the transmural arterial injury with constricting adventitial fibrosis precludes endarterectomy or angioplastic tech-

niques. Arterial segments free of radiation effects should be selected for the bypass procedure. Saphenous vein is the graft of choice when the vein size is adequate. In the absence of a satisfactory vein graft, however, the Bovine heterograft or dacron graft materials are suitable alternatives. Skin necrosis and infection may require modifications of usual reconstructive techniques to avoid contaminated areas. This is exemplified in the report by Ross *et al*⁸ which described ileopopliteal bypass graft with passage of the dacron graft through the obturator foramen and medial thigh musculature in management of a postirradiation femoral artery aneurysm. Venous and lymphatic obstructive changes associated with radiotherapy may complicate arterial reconstruction and result in troublesome arm edema when reconstruction is successful.

SUMMARY

The course and management of a patient in whom radiation injury of the axillary artery resulted in occlusion of the artery and gangrene of a fingertip are described. This patient represents the fourth reported case of axillary artery injury caused by postmastectomy radiotherapy and the second case in which arterial reconstruction has been used. All postmastectomy patients who received radiotherapy are at risk for the development of this problem and warrant careful evaluation since this lesion typically has an insidious onset many years after the radiotherapy.

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Parathyroid Cysts

Case Report

THE CLINICAL SIGNIFICANCE of parathyroid disease is primarily related to hyperfunctioning tissue associated with hyperplasia, adenoma and carcinoma. The only clinically significant normal functioning parathyroid lesion is the cyst.¹ Parathyroid cysts occur most commonly in the cervical region and have rarely been reported to develop in the mediastinum. The first surgical excision of a cervical parathyroid cyst was reported by Goris.²

The first documentation of a mediastinal parathyroid cyst was by de Quervain³ in 1925 and hyperparathyroidism produced by hyperfunctioning parathyroid tissue in the cyst wall was suggested in a patient described by Welti⁴ in 1946 and documented by Greene⁵ in 1952.

This report presents a case of nonfunctioning mediastinal parathyroid cyst and a review of the literature reporting cervical and mediastinal parathyroid cysts.

CASE REPORT

A 61-year-old woman presented to St. Louis University Hospital for evaluation of a mediastinal mass found on routine chest x-ray. On detailed questioning, the patient admitted to mild dysphagia and a nonproductive cough. She denied symptoms of thyroid or parathyroid disease. The patient had undergone subtotal thyroidectomy 20 years previously and had not received thyroid supplementation.

On physical examination, the patient's blood pressure

was 120/90 mm. Hg. There was no evidence of respiratory distress. A transverse, low cervical incision was well healed. The right lobe of the thyroid was felt to be palpable and no other palpable masses were evident in the neck.

Chest x-ray revealed an anterior mediastinal mass extending to the right with displacement of the trachea to the left. The mass was not calcified. On barium swallow, there was esophageal displacement to the left at the level of the thoracic inlet (Figs. 1 and 2). The mass did not pulsate when examined fluoroscopically. Thyroid evaluation included TBI of 1.02 (normal 0.87 to 1.13); T₄ of 6.8 μ gm% (normal 5 to 13 μ gm%); and free T₄ index of 6.7 (normal 4.4 to 15.7). Serum calcium was 10.5 mg/100 ml and 10.2 mg/100 ml (normal 8.5 to 10.5) and inorganic phosphorus was 4.5 mg/100 ml and 4.2 mg/100 ml (normal 2.5 mg/100 ml to 4.5 mg/100 ml).

Thyroid technetium pertechnetate scan demonstrated no concentration in the superior mediastinum. There was a cervical thyroid remnant. However, high background activity afforded poor resolution.

Surgical exploration through a median sternotomy incision revealed a 12 cm x 6 cm cystic mass in the superior mediastinum posterior to the right subclavian artery and vein and innominate artery. The arterial supply of the cyst arose from the right inferior thyroid artery and the cyst was separate from the thymus gland. The cyst extended into the base of the right side of the neck and was loosely adherent to mediastinal structures and easily separated from them.

On gross examination, the cyst was thin walled, unilocular and contained 35 ml of clear fluid. Microscopic examination revealed that the cyst wall consisted of connective tissue fibers lined by a parathyroid tissue. Both chief and oxyphil cells were present and occurred as a simple cell layer as well as nests of cells. Multiple chief cell acini were evident at the areas of greatest parathyroid tissue concentration. Occasional microcysts were seen, as well as some adipose stroma (Fig. 3).

Postoperatively the patient did well. Serum calcium determinations of 8.8 mg/100 ml, 9.0 mg/100 ml and 9.2 mg/100 ml were observed on alternate days beginning on the first postoperative day. There were no signs or symptoms of hypoparathyroidism.

DISCUSSION

The parathyroid cysts that have been reported occurring primarily in the mediastinum are de-

A nonfunctional mediastinal parathyroid cyst is described in this case report. The article also presents a review of the literature of mediastinal and cervical parathyroid cysts and a discussion of the possible etiological mechanisms. The authors point out that approximately 10% of all parathyroid cysts are functional and produce hyperparathyroidism. Drs. Stanczyk, Kaminski and Kaiser are from the Department of Surgery, St. Louis University School of Medicine.



Fig. 1 Esophagram demonstrating right superior mediastinal mass.



Fig. 2 Oblique view of esophagram showing well demarcated mediastinal mass.

tailed in Table 1. The age range of the 12 patients was 30 to 69 years with a mean age of 54 years. The male to female ratio was equal.

The most frequently noted symptoms in this group was a neck mass amplifying the difficulty in determining whether a "mediastinal" parathyroid cyst develops from cervical or mediastinal parathyroid tissue. Only one of 12 mediastinal parathyroid cysts are functional. The patient reported by Mizutani *et al*⁶ presented with chemical hyperparathyroidism and recurrent urolithiasis, both of which resolved after a retrosternal cystic parathyroid was removed. The primary symptoms in the remaining patients were related to the size of the cyst-producing compression symptoms and dysphagia.

Although macroscopic parathyroid cyst formation is uncommon, parathyroid tissue in the mediastinum is not. The thymus and inferior parathyroids develop embryologically from the endodermal lining of the third pharyngeal pouch.⁷ The parathyroids may assume a mediastinal position by migrating caudad with the thymus. The occurrence of parathyroid tissue in thymus tissue removed at thymectomy is high (19%-27%),^{8,9} suggesting that the occurrence of microscopic parathyroid tissue in the mediastinum may be higher than would be

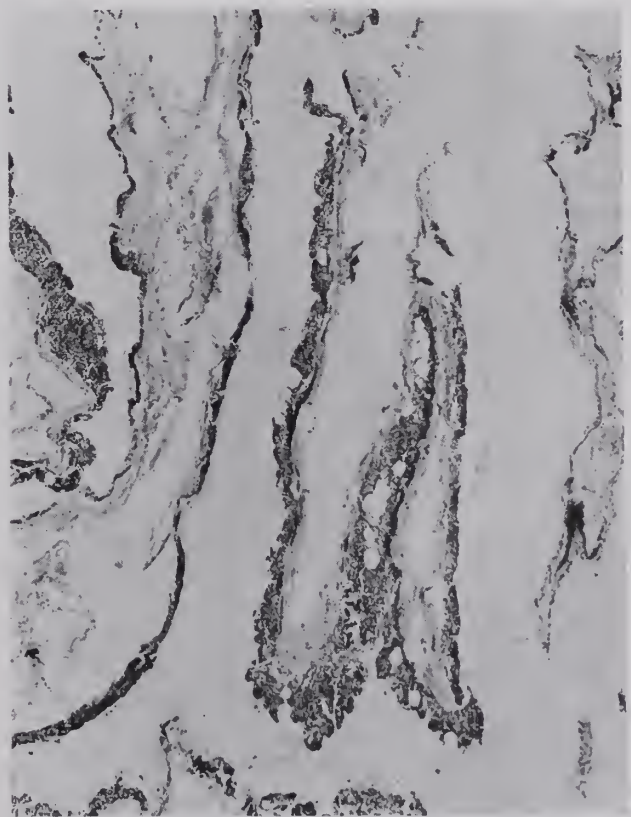


Fig. 3 Low power photomicrograph of cyst wall.

TABLE 1
MEDIASTINAL PARATHYROID CYSTS

Author	Case No.	Age/Sex	Primary Symptoms	Side	Size	Functional
de Quervain ³	1	55/F		L		No
McGoon ²³	2	66/M	Hyperthyroidism	R	2 cm × 4 cm	No
			Neck mass			
Crile ²⁴	3	69/F	Dysphagia	R	3 cm × 6 cm	No
Welt ²⁵	4	63/F	Neck mass	R		No
	5	54/F	Neck mass	R		No
Beahrs ²⁶	6	56/F	Hoarseness	R	10 cm × 12 cm	No
Mizutani ⁶	7	35/M	Urolithiasis			Yes
Johnsrud ²⁷ (in Fratkin)	8	52/M	Neck mass	L	8 cm × 8 cm	No
Sutherland ²⁷ (in Fratkin)	9	30/M	Tracheal compression	R	10 cm × 10 cm	No
Furuya ²⁸	10	64/M	Retrosternal pain	R		No
Thacker ²⁹	11	46/M	None	R	6 cm	No
Authors	12	61/F	Dysphagia	R	6 cm × 12 cm	No

TABLE 2
CERVICAL PARATHYROID CYSTS REPORTED SINCE REPORTS OF HAID¹⁴ AND WOOD¹⁵

Author	Case No.	Age/Sex	Primary Symptoms	Side	Size	Functional
Johnsrud ²⁷ (in Fratkin)	1	27/F	Neck mass	L Inferior	2 cm × 1.5 cm	No
Haid ¹⁴	2	70/F	Neck mass	L Inferior	1 cm	No
	3	32/F	Neck mass	L Inferior	3 cm × 2 cm	No
Earll ³⁰	4	37/M	Neck mass	L Inferior	7 cm × 5 cm × 3 cm	Yes
Furuya ²⁸	5	40/F	Neck mass	L Inferior	4.5 cm × 3.5 cm × 3.0 cm	No
	6	39/M	Neck tumor	L Inferior	6.5 cm × 5.5 cm × 5.0 cm	No
Rogers ¹⁶	7	38/M	Neck mass	L Inferior	5 cm × 3 cm	No
	8	41/F	Hyperparathyroidism	R Inferior	1 cm × 1 cm	No
	9	59/M	Hyperparathyroidism	R Superior	3 cm	Yes
Daniel ³¹	10	69/F	Neck mass	Intrathyroid	4 cm	No
Haugen ³²	11	24/F	Neck mass	R Inferior	3 cm	No
	12	78/M	None	R Inferior	1.5 cm	No
Gatchell ³³	13	43/M	Neck mass	R Inferior	3.5 cm	No
	14	38/F	Neck mass	L Inferior	1.5 cm	No
Howell ³⁴	15	64/F	Neck mass	R Inferior	8 cm × 6 cm × 3 cm	Yes
	16	34/F	Neck mass	L Inferior	2.5 cm	No
	17	56/M	Dyspnea	L	7 cm	No
	18	52/F	Neck mass	L	3 cm × 4 cm	No
	19	79/F	Neck mass	L	6 cm × 1.5 cm × 1 cm	No

* Does not include 21 parathyroid cysts described by Hoehn *et al.*¹

suspected considering the incidence of hyperfunctioning mediastinal parathyroid adenomas.^{10, 11}

Although parathyroid tissue does exist in the mediastinum, it is possible that all mediastinal parathyroid cysts have a cervical origin. Walton¹² and, later, Cope¹³ proposed that mediastinal parathyroid adenomas migrated from the cervical area aided by increased weight, deglutition and negative intrathoracic pressure. The phenomenon could occur also with parathyroid cysts which have a great-

er size and weight than do adenomas.

The cervical parathyroid cysts that have been reported since the reports of Haid¹⁴ and Wood¹⁵ are documented in Table 2. Including the 21 patients reported by Hoehn *et al.*,¹ the total number of cervical parathyroid cysts that have been reported is 84. In the accumulated 63 reported cases, there were 2.6 times as many women as men. The age range was 16 to 77 years with a mean age of 43 years.

In 47 patients, the only symptom was a neck mass. Eleven patients in the series of 84 were hyperparathyroid with ten parathyroid cysts being functional. Eight patients presented with symptoms of hyperparathyroidism. Gordon and Harcourt-Webster reported in 1965 that no significant parathyroid endocrine dysfunction has been recorded before or after removal of a parathyroid cyst. However, this review reveals that 11% of the cervical cysts and 8% of the mediastinal cysts are hyperfunctioning.

Although 10% of the parathyroid cysts were hyperfunctioning, it is doubtful that all cysts result from degenerating parathyroid adenomas.¹⁶ More patients would be suffering from the sequelae of hyperparathyroidism if this were true. Selye¹⁷ produced cystic changes in rat parathyroid glands by administration of calcium along with vitamin D or parathyroid extract. He postulated that discharge of parathormone was simultaneously regulated by calcium and vitamin D or parathormone or both. Excess of both calcium and parathormone blocked the discharge of cellular secretions resulting in the formation of retention cysts. The experimental model of Selye corresponds well to the patient with primary hyperparathyroidism and may explain the formation of cysts in this group.

The theories of the pathogenesis of parathyroid cyst formation are directed toward an acquired theory which relates cyst formation to retention and congenital theory which considers cyst formation to occur as a result of enlargement of embryological remnants of the branchial clefts. Microscopic vesicles and macroscopic cysts of no clinical significance are frequently encountered when the parathyroid glands are examined pathologically. Black and Watts¹⁸ describe cysts occurring in all sizes from 100 micron vesicles to macrocysts ranging in size from 400 microns to 4,000 microns. This, along with their demonstration of compressed parathyroid tissue in the cyst wall led them to conclude that clinically significant parathyroid cysts were acquired retention cysts.

The concept of a congenital derivation of parathyroid cysts is supported by an analogous situation in the pathology of thyroid cysts. Cysts of the thyroglossal remnant are distinguished from cystic thyroid changes by the presence of an epithelial lining in the congenital cysts. Thompson and Harris¹⁹ originally described the epithelial lining of parathyroid cysts, and such lining epithelium was described in 69% of 26 reported cases reviewed by Perdue and Martin.²⁰ The embryological studies

of Gilmour⁷ also supported this formation of "congenital" parathyroid cysts. He described vesicular structures derived from the parathyroids in fetuses which he called "canals of Karsteiner" and which he believed were of no apparent significance unless they persisted into adult life, were enlarged and formed gross cysts. These vesicular, canalicular, rudiments were all derived from the lower parathyroids and were epithelial cell lined. Fifty-five of the reported 63 parathyroid cysts were reported to be found in a position compatible with that of the inferior parathyroids and 12 cysts were mediastinal. In opposition to such a congenital theory of origin is the finding by Fisher and Gruhn²¹ that the epithelial lining of a parathyroid cyst, by histochemical study, contained glycogen in quantities more commensurate with parathyroid tissue than the epithelial lining of congenital branchial cleft cysts.

The clinical features of parathyroid cysts do not usually allow for preoperative differentiation of the cyst type from other space occupying cervical and mediastinal lesions. Of importance in determining the etiology of the cysts would be to determine the parathormone concentration of the cyst fluid. High parathormone levels would suggest that the cyst was acquired and the result of retention as has been suggested by Chimenes *et al.*²²

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Hereditary Hyposplenism in an Adult and Immunological Implications

Case Report

THIS PATIENT probably represents the first reported case of an adult with congenital splenic hypoplasia diagnosed antemortem. Her primary complaint was weakness, drowsiness and loose stools. She had no apparent increase of severe infections. Immunological tests revealed no abnormalities. Asplenia leads to increased risk of bacterial sepsis. The presence of opsonizing antibodies may be the necessary deterrent to sepsis. Without opsonizing antibodies, the spleen's production of a type-specific antibody is crucial. Explanations for this patient's absence of serious infections are proposed. Immunological testing may better define which patients can undergo diagnostic laparotomy with minimal risk.

Until 1952 when King and Schumacher¹ first challenged the concept that the spleen is not physiologically essential, hereditary splenic hypoplasia was of interest primarily to the morbid anatomist. Since that time, the evidence has continued to ac-

crue that there is a relationship between severe bacterial infections and absence of the spleen, whether it is congenital or acquired.²⁻⁶

This paper reports clinical and laboratory data from a case of hereditary splenic hypoplasia—diagnosed antemortem in an adult and discusses possible mechanisms by which absence of a functioning spleen could lead to increased susceptibility to bacterial infections.

CASE REPORT

A 41-year-old white woman was admitted to Barnes Hospital with a chief complaint of weakness and drowsiness during the past three to four years. She also complained of periodic loose stools, which upon investigation did not appear to be of bacterial or parasitic origin. She had a history of hypermenorrhea and metrorrhagia with associated iron deficiency anemia. For the previous 20 years, she had been noted to have consistently elevated white blood cell and platelet counts with the former ranging from 11,000/cu mm to 20,000/cu mm and the latter 580,000/cu mm to 780,000/cu mm. She had been told at the age of 23 that she had leukemia, but this was not borne out by subsequent testing. She gave no history of frequent or overwhelming bacterial infections, but she did have a laparotomy in 1967 for a left ovarian abscess. There was no history of cardiac symptomatology or pathology. This patient has been reported in the literature as having "chronic idiopathic leukocytosis."⁷

Results of her physical examination were essentially negative except for brown hyperpigmentation on her cheeks and upper back.

Laboratory studies revealed a hemoglobin level of 11.8 gm/10 ml; white blood cell count (WBC) 19,700/cu mm; platelets, 885,000/cu mm; reticulocytes, 2.3%; differential of 60% segmented neutrophils, 34% small lymphocytes, 4% monocytes, 1% eosinophils and 1% basophils. No Howell-Jolly bodies were noted. Sternal marrow examination revealed only an increase in megakaryocytes. Routine serum enzyme and electrolyte values were normal. A glucose tolerance test was borderline abnormal and a lactose tolerance test showed a flat curve over two hours. Serum carotene was normal. Results of upper gastrointestinal x-ray examination, barium enema films and oral cholecystograms were normal. Stools were negative for ova and

A 41-year-old woman who was admitted to Barnes Hospital may represent the first reported adult with congenital splenic hypoplasia which was diagnosed antemortem. The fact that this patient has no history of serious infections suggests that she may have acquired protective levels of opsonizing antibodies. Therapeutic approaches in asplenia and immunological implications of splenectomy are discussed.

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parasites. A liver-spleen scan utilizing ^{99}Tc did not visualize a spleen. Repeat spleen scanning after injection of autologous erythrocytes labelled with ^{51}Cr still failed to show evidence of splenic tissue although there was some uptake by the liver. At this time, it was felt that the patient represented a case of hereditary splenic hypoplasia and her immune system was further evaluated.

She had a *Salmonella typhosa* O antigen titer of 1:20 with a negative H antigen titer. The ASO titer was 1:166 and the antihyaluronidase titer was 1:256. Delayed hypersensitivity skin tests to histoplasmin, coccidioidin and tuberculin were negative, but she had a delayed hypersensitivity reaction to mumps antigen.

Serum IgG, IgA, and IgM quantitations were within normal limits, and immunoelectrophoresis revealed a normal pattern for immunoglobulins. Total hemolytic complement, C'3 and C'4 components were all within normal limits.

COMMENTS

Background

We believe that our patient represents the first reported case of an adult with congenital splenic hypoplasia diagnosed antemortem. More than 160 cases of hyposplenism have been reported in the literature,⁸ but the vast majority of these have represented autopsy findings in children and usually were associated with rather severe congenital cardiac anomalies.^{6, 9-13} Only nine cases of hyposplenism in adults have been reported and all of these were noted postmortem.¹⁴⁻¹⁶

In 1955, Bush and Ainger reported a child with splenic hypoplasia diagnosed antemortem.¹³ On peripheral smear, the patient was noted to have Howell-Jolly bodies but the investigators were unable to demonstrate Heinz bodies, thought to be pathognomonic for the condition by Gosser and Willi.¹⁷ The child died subsequently from congenital heart disease. In 1969, Kevy *et al* diagnosed hereditary splenic hypoplasia in two siblings of a child who had died of *Hemophilus influenza* meningitis and was found to have only a rudimentary spleen on autopsy.² As has been frequently described in patients found to have hyposplenism, both of these siblings gave a history of recurrent serious bacterial infection. Both demonstrated Heinz and Howell-Jolly bodies. No cardiac anomalies were detected in any of these siblings. Splenic scanning utilizing ^{198}Au colloid and ^{51}Cr tagged heterologous erythrocytes failed to demonstrate evidence of splenic tissue on either of the surviving siblings.

In contrast to Kevy and Bush's patients, our subject failed to show characteristic changes in the red blood cells on the peripheral smear. She had no

history of recurrent serious infections. However, in view of her splenic scanning results and the fact that the records of the Nuclear Medicine Division at Barnes Hospital reveal no previous negative spleen scans without history of previous splenectomy, we feel certain that she does, in fact, represent a case of hereditary hyposplenism or asplenia.

Immunological Status

Since the association of congenital asplenia with serious and overwhelming infection is now rather apparent,^{2-6, 18} we endeavored to check our patient's immunologic competence with various tests. Although our testing was less extensive than that of Kevy *et al*, we were also unable to detect any definite abnormalities of either her humoral or cellular immunity. The only abnormality they were able to detect in their patient's immunologic competence was the inability to produce an adequate antibody response to the intravenous injection of sheep erythrocytes. This failure to produce an adequate antibody response to intravenous antigen has previously been described in both animals and humans with acquired asplenia.¹⁹⁻²¹

Association of Asplenia with Bacterial Infections

Although there have been conflicting data in the past,²²⁻²⁷ there is now substantial documentation in the literature, at least in the case of certain organisms, that the absence of the spleen, whether congenital²⁻⁶ or acquired,^{18, 24, 25, 28-31} leads to increased susceptibility to bacterial sepsis. There also is substantial agreement that the risk of septicemia is further increased in these cases when any or all of the following conditions occur in the asplenic patient: (1) There is associated depressed reticulo-endothelial system (RES) function;^{18, 25-27} (2) The spleen has been absent less than two years;^{24, 26} (3) The patient is a young child.^{24, 31, 32} The risk of sepsis in otherwise healthy adults who have acquired asplenia as a result of trauma to the organ or in patients undergoing staging laparotomy with splenectomy is real,^{28, 30} but the risk would appear to be less than in congenital asplenic patients.

The vast majority of the cases of sepsis in patients with congenital and acquired asplenia have been caused by pneumococcus, hemophilus influenza and meningococcus organisms with pneumococcus greatly predominating.^{3, 18, 28, 31} These organisms are similar in that when bacteremia occurs, the body's primary defense mechanism against these organisms is phagocytosis of the offending organisms by the RES. In the presence of opsoniz-

ing antibody, phagocytosis is greatly enhanced since all the RES is then capable of removing bacteria from the blood. If this antibody is quantitatively low or qualitatively deficient, the spleen appears to become the primary organ for phagocytosis of the offending organisms.³³⁻³⁵ The spleen also has been found to be an early source of type-specific antibody when challenged with intravenously particulate antigen.^{36, 37} Thus, in the absence of opsonizing antibody, the spleen has the ability to challenge the initial blood-borne bacteria and then quickly produce antibody to aid both itself and the remainder of the RES to handle the bacteremic insult.

Immunological Role of Spleen

Therefore, the spleen appears to assume its major role in those cases in which the local defenses are overwhelmed, bacteremia occurs and the body is deficient in opsonizing antibody. Without this type specific antibody, a critical level of bacteria in the blood might be reached that could no longer be handled by the RES in the absence of the spleen and overwhelming sepsis would then result. Thus, the primary determinant of septic risk in asplenia would be the concomitant presence or absence of opsonizing antibodies. With the protective antibodies, the spleen should not be vital in clearing the circulation of bacteria. Without them, the presence of the spleen could mean the difference between survival and death.

The reason why most patients with asplenia have not experienced overwhelming infections is, perhaps, still a matter open to conjecture. However, it would seem reasonable to assume that one of two situations has transpired in these cases:

1. The subject has never experienced any infection severe enough to overwhelm his available immune system.
2. Prior to what would be an overwhelming bacterial infection, the subject has had sufficient minor challenges from the offending organisms allowing him to acquire protective levels of opsonizing antibody.

We feel that the above reasons could explain why our patient did not give a history of severe infections and survived into adulthood.

Therapeutic Approaches in Patients with Asplenia

Since it is difficult to determine the opsonin capabilities in each patient with asplenia, it might be well to consider the use of some therapeutic regimen that could help protect the body against bacterial insult. This would be of even greater im-

portance in those cases in which deficient antibodies are suspected, such as in young children and patients with decreased immunologic competence.

Penicillin prophylaxis has been suggested as one course of action.³⁰ There are insufficient data at this time, however, to determine how effective it will prove to be on both short- and long-term bases. It also is unclear when the penicillin should be discontinued, if ever.

Of much greater potential significance is the possibility that specific vaccines will be successfully developed against the most common organisms involved in sepsis and asplenia. If these should become available, it would seem prudent to consider the asplenic patients as primary candidates for their use.

The possible therapeutic value of splenectomy in staging procedures must be weighed against an increased risk of sepsis. The magnitude of the risk for an individual patient may be better defined if all patients were to have a battery of carefully defined immunologic tests before and after surgery. Certain presurgery findings might prove sufficient to mitigate against splenectomy. Postsurgery findings might encourage the use of prophylactic therapy for sepsis.

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Prevalence of Problem Drinking in a Community Survey

THE NATIONAL INSTITUTE ON ALCOHOL ABUSE AND ALCOHOLISM estimates that 9 million Americans are alcoholics and that fewer than 10% of these are receiving treatment.¹ Much research has been done and much has been written about the problem of alcoholism. Indeed, several journals are devoted solely to alcohol studies. However, estimates of the prevalence of alcoholism from community surveys are rare.

A literature search by the National Clearinghouse for Mental Health Information yielded no studies of the incidence or prevalence of alcoholism in the general population. However, a literature search by the authors uncovered several estimates of prevalence. A 1963 survey of New York City residents found that 4% of adults reported problems because of drinking at sometime in their lives.² In a national survey conducted by Mulford, 10% of respondents reported difficulties with drinking.³ Mulford and Wilson developed and tested several scales for the identification of problem drinking and used these in a household survey in Cedar Rapids, Ia.⁴ Prevalence figures were 4.5% for a scale measuring preoccupation with alcohol and 5.3% for a scale on troubles due to drinking.

The present study presents findings regarding problem drinking from an epidemiologic community mental health survey of Kansas City, Mo. residents. Included in this survey was a scale to measure problem drinking based on that of Mulford and Wilson. The relationship between scale scores and demographic measures is examined. In addition, associations between problem drinking and other survey measures of pathology are presented.

METHOD

A continuous weekly survey of adult residents of Kansas City was conducted from October, 1971 through October, 1972. A total of 976 persons or 73% of the selected sample were interviewed in their homes by trained interviewers. Of these 976 persons, ten did not complete the portion on problem drinking.

An epidemiologic community mental health survey of Kansas City suggests that the prevalence of potential problem drinkers could be as high as one out of five persons in urban areas. This article highlights some of the characteristics of the alcoholic which should help physicians and other health workers to be alert to potential alcoholism in patients. Ms. Klassen is Research Associate, Greater Kansas City Mental Health Foundation. Dr. Hornstra is Associate Director of the Foundation, Director of Training and Education at the Western Missouri Mental Health Center and Professor of Psychiatry at the University of Missouri Medical Center.

This research was supported in part by the Center for Epidemiological Studies, NIMH, Contract #PH 43-66-1324.

The survey instrument consisted of more than 300 questions related to mood, mental and physical health and demographic information. The average time of administration was one hour. The scale on problem drinking consisted of nine questions about troubles or difficulties due to drinking during the past year. Four of the nine items were from Mulford and Wilson's trouble-due-to-drinking index.⁴ Additional items were devised by the Center for Epidemiologic Studies, NIMH, DHEW. This scale occurred late in the questionnaire and was next to the last scale administered. Previous to administration of the scale, the respondent was asked, "Have you ever drunk beer, wine or alcohol?" Those who responded "no" (22%) were not asked the questions about problems due to drinking. These persons are included in the analysis among those with no problem.

RESULTS

Table 1 shows the nine scale items and the percent of persons responding positively to each prob-

TABLE 1
PERCENT OF RESPONDENTS WITH PROBLEMS
DUE TO DRINKING (N = 966)

<i>Problem</i>	<i>% Yes Responses</i>
1. Have you ever failed to do some of the things you should have done because of drinking?	11.1
2. Have any of your friends or relatives asked you to cut down on your drinking?	8.7
3. Has a physician ever told you that drinking was hazardous to your health?	6.6
4. Has anyone ever complained that you spent too much money on alcoholic beverages?	6.0
5. Have you ever had an accident or injury because of drinking?	4.2
6. Have you ever had any illness brought on because of drinking?	3.9
7. Have you ever been picked up or arrested for intoxication or other charges involving alcoholic beverages?	3.3
8. Have you ever had difficulty meeting bills because of drinking?	1.3
9. Have you ever been fired or threatened to be fired because of drinking?	0.8

lem-drinking item. "Yes" responses ranged from 0.8 for "fired or threatened to be fired" because of drinking to 11.1% for "failed to do some things because of drinking."

This scale was scored by summing the number of "yes" responses. Distributions of scores were 0 problem—79%, 1 problem—10%, 2 problems—5%, 3 problems—3% and 4 problems or more—3%. For purposes of analysis, persons scoring 1 or more were considered to be problem drinkers.

Table 2 shows the percentages of problem drinkers by sex, race, age, education, marital status and religion. Men showed a much higher incidence of problem drinking than women (38% vs 10%). Problem drinking decreased with age from 28% for the 18- to 24-year-old group to 9% for the 65-and-over group. Marital status also was significantly associated with problem drinking with the highest incidence for the never-married group (35%) and lowest incidence for the widowed group (12%). Persons with no religious affiliation and Catholics showed the highest proportions of problem drinkers (42% and 27%, respectively) while Jewish persons showed the lowest (6%). There were no significant differences on the basis of race or education.

The survey instrument included a scale on habits. Respondents were asked, "During the past year, did you have any habits like?" Table 3 shows

TABLE 2
PERCENT OF RESPONDENTS WITH ONE OR MORE
DRINKING PROBLEMS BY DEMOGRAPHIC
CHARACTERISTICS

	<i>N</i>	<i>% 1+ Problems</i>
Male	386	38.1°
Female	578	10.4
White	724	21.3
Black	234	21.4
18-24	140	27.9°
25-39	295	24.7
40-54	247	24.3
55-64	107	18.7
65 and over	170	8.8
Some college or more	292	25.0
High school graduate	318	21.1
Less than high school graduate	350	19.1
Never married	120	35.0°
Married	604	19.9
Widowed	117	12.0
Separated/divorced	122	25.4
Protestant	695	18.6°
Catholic	161	27.3
Jewish	16	6.3
Other	21	19.0
No affiliation	69	42.0

° $p < .001$.

the percent of problem drinkers for persons who did not have the habit and for those who did have the habit. Five of the eight habit items (smoking, biting nails, worrying, losing temper and marijuana) showed a significant relationship to problem drinking with the group who reported having the habit also having a higher proportion of problem drinkers. The most striking difference was for the habit of smoking; only 9% of nonsmokers were problem drinkers compared to 36% of smokers.

TABLE 3
PERCENT PROBLEM DRINKING BY HABITS

<i>Habit</i>	<i>Do Not Have Habit</i>		<i>Have Habit</i>	
	<i>N</i>	<i>% PROBLEM DRINKER</i>	<i>N</i>	<i>% PROBLEM DRINKER</i>
Overeating	580	20.9	384	22.4
Smoking	524	9.4	438	36.1†
Biting nails	783	19.7	180	29.4°
Worrying	628	19.1	334	26.0°
Taking pills or medicine	918	21.1	44	27.3
Losing temper	742	19.1	221	29.4†
Drinking soft drinks, tea or coffee	523	19.9	441	23.4
Marijuana	947	20.9	15	53.3°

° $p < .01$.

† $p < .001$.

TABLE 4
PERCENT PROBLEM DRINKING BY PATHOLOGY MEASURES

Pathology Measure	Response Category		Response Category	
	N	% PROBLEM DRINKER	N	% PROBLEM DRINKER
		No		Yes
Disability days	824	21.5	139	20.9
		No		Yes
Accidents or injuries	926	21.1	38	31.6
		No		Yes
Upset	912	20.6	52	36.5 ^a
		No		Yes
Emotional problem	863	19.6	99	38.4 [†]
		Very happy		Not too happy
General happiness	272	14.3	588	22.1
		Very often-fairly often		Occasionally—never
Enjoying life	771	18.7	193	32.6 [†]

^a $p < .01$.[†] $p < .001$.

Table 4 shows the percent of problem drinkers according to several additional measures of pathology as follows: disability days during the past week, injuries or accident during the past week, being so upset could not perform usual activities during the past week, emotional problem during the past month, general happiness and how often respondent feels he/she is really enjoying life.

Four out of six of the measures showed significantly higher proportions of problem drinkers in the "sick" than in the "well" categories. Problem drinking was associated with being upset, having an emotional problem, being not too happy and low enjoyment of life.

DISCUSSION

On the basis of our definition, we found a very high prevalence of problem drinking in the general population (21%). This is substantially higher than previously reported rates of 4%, 5% and 10%.^{2, 3, 4} Some proportion of this larger prevalence rate may represent an increase in problem drinking in recent years, while some may be due to reporting differences. Given that our instrument was administered at the end of a lengthy questionnaire on sensitive topics, such as the respondent's mental health, we would expect fairly accurate reporting and less defensive denial of drinking problems. Some of the differences, no doubt, are due to procedural differences. For example, Mulford and Wilson⁴ and Mulford⁵ used a five-item scale and Elinson, Padilla, and Perkin² used a four-item scale, while the present study used nine items. Nevertheless, in survey studies such as these, overre-

porting is not generally seen as a problem and the higher prevalence figures may well be the most accurate. It should be made clear that we do not conclude that 21% of the Kansas City population are alcoholics, but that 21% may have a potential problem with drinking.

Higher risks of problem drinking were found for males, younger age groups, the never-married and the separated-and-divorced and for Catholics and those with no religious affiliation. The findings in regard to sex are consistent with those of previous survey findings⁴ as well as of studies of persons in treatment.⁵ Though there is increasing interest in the woman alcoholic and alcoholism among women is said to be rising, it appears that problem drinking is still predominately a male problem. However, because of cultural definitions of masculine and feminine behavior, women may be more reluctant to identify themselves as having problems or difficulties due to drinking.

The findings that younger people have a higher prevalence rate is not in agreement with Mulford and Wilson. However, the lower prevalence in the oldest age group is consistent. This finding of highest rates in the 18- to 24-year age group lends support to the currently increasing concern about problem drinking among the young.

Contrary to the present study, Mulford and Wilson found higher rates among less educated persons. However, using a sample of known alcoholics, they found that their items were not effective in identifying alcoholics in higher socioeconomic categories. In effect, the problem items used were those more likely to be encountered by the lower-

class drinkers, such as arrests or money problems. In this regard, our instrument may represent an improvement over previous instruments. Because of these socioeconomic differences, upper- and middle-class persons are less likely to be identified as needing help by physicians and other professionals with whom they come in contact.⁶

Problem drinking was found to be associated with other habits and with other measures of pathology. These findings were consistent within demographic subgroups. Thus, from our data, a general picture of the problem drinker emerges as a person who experiences more pathology in general and who smokes, worries, loses his or her temper, has an emotional problem, is less happy and enjoys life less. However, no causal relationships can be inferred from the data.

In summary, the prevalence of potential problem drinkers may be as high as one out of five in urban areas. A knowledge of the extent of problem drinking should help physicians and other health workers to be alert to potential alcoholism.

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As Chafetz points out, all too often a problem drinker has "hit bottom" before diagnosis is made and treatment begun.⁷ Detection and preventative measures in the early stages of alcoholism might do much to reduce the emotional and physical damages and economic costs that are caused by alcoholism.

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Dear Doctor:

"Thank you very much for your thoughtful letter concerning receipt of my final payment on my medical student loan.

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President's Message

This column and similar Presidents' Pages, opinion pages and editorials often stress the importance of member participation in Association and professional activities.

I am extremely pleased this month to commend the many MSMA members who have become involved in organized medicine the past few months and have taken an active interest in seeking answers to the malpractice insurance crisis.

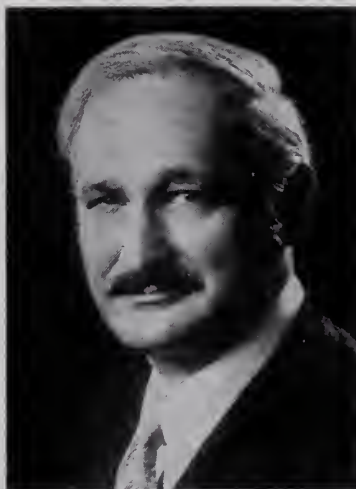
More than 250 physicians and their wives from across the state journeyed to Jefferson City in early January to attend the Senate Public Health Committee hearing on three bills dealing with malpractice. Then, the following week, more than 100 physicians and their wives turned out for the hearings on five malpractice bills conducted by the House Public Health Committee.

I believe those physicians who were present, including myself, must have been pleasantly surprised by the knowledge of the situation expressed by members of both committees and by the courtesy shown to all physicians who desired to testify.

I think the members of the House and Senate committees should be congratulated for the many hours of work they have donated to the malpractice question. It is obvious that many MSMA members have been in touch with their legislators concerning malpractice, and the effects of this were apparent during the hearings.

Although the bills currently being considered by the Legislature are not "cure alls," they certainly should improve the present malpractice climate. As these bills traverse the legislative avenues toward hopeful passage, we must continue to talk with our lawmakers and, yes, we must take time out to attend more hearings in Jefferson City!

The large turn-outs at the first two meetings have made impressions on our senators and representatives. But, when the bills are scheduled for floor debate and hearings in the opposite chamber, we must not say, "I've done my part. Let someone else do it next time." Obtaining passage of good legislation . . . and I firmly believe this to be good legislation . . . is a tedious, time-consuming endeavor. If, as I have heard from some physicians, the present legislation does not fill all the needs of the situation, let's seek additional remedies next year. For now, however, we must work hard on the bills before the Legislature if any relief from the malpractice crunch is to be achieved this year.



R. Allen Chandler, M.D.

The Heimlich Maneuver Emergency Treatment for **FOOD CHOKING**

When a person, while eating,

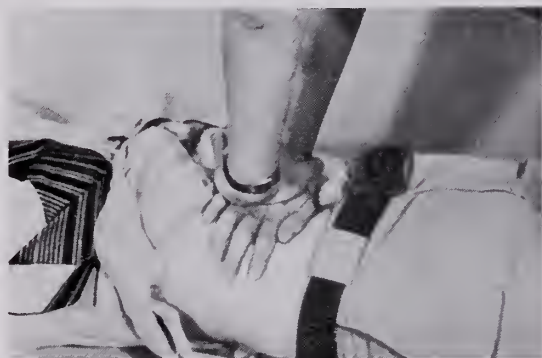
1. Cannot speak
2. Turns blue
3. Collapses

WHAT TO DO

- Stand behind the victim (whether he be seated or standing) and place your arms around his waist.
- Place your fist against the victim's abdomen slightly above the belt line but below the rib cage.
- Grasp your fist with your other hand and press into the abdomen with a forceful upward thrust.

OR...If the victim is lying on his back, face up, rescuer should:

- Kneel astride the victim's hips.
- Place one of your hands on top of the other and place the heel of the bottom hand against the abdomen just above the navel and below the rib cage.
- Press the hands into the abdomen with a forceful upward thrust.



AND...Repeat the maneuver if necessary. Be prepared to remove morsel of food from the mouth of the victim if it is not completely ejected.

REMEMBER

Act quickly but stay calm.

Keep your wits and you have four long minutes in which to save a life.

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Woman's Auxiliary

THE HUG OF LIFE

Each year in the United States, there are 3,900 deaths of healthy individuals caused by choking on food. The figure is probably much higher because of undiagnosed deaths. Indeed, food-choking is the sixth leading cause of accidental death. Its victims number more than those accidentally killed by firearms, airplane accidents, lightning or snakebite.

To date, the most effective emergency treatment appears to be one worked out by Dr. Henry Heimlich of the Jewish Hospital in Cincinnati. It is known as the Heimlich Maneuver. It involves putting sudden pressure on the subdiaphragmatic abdominal region, forcing air and food out of the trachea. It does not require specialized instruments or equipment. (Since Dr. Heimlich began popularizing the maneuver a year and a half ago, his hug of life has been used on 374 potential choking victims and all have survived.)

Because of the life saving potential of this first aid technique, the MSMA Auxiliary has initiated a project to distribute illustrated posters describing the maneuver. The posters will be distributed by the members of our county units and are intended to be displayed in the kitchen areas of restaurants, nursing homes, cafeterias of schools and industries, clubs and comparable places. The Council of the MSMA, the Missouri Restaurant Association and the Missouri Nursing Home Association have endorsed the project. If you know of a spot where this poster might prove to be of value, please contact us.

Since food-choking is certainly a true and usually fatal emergency in which life or death is measured in minutes, we believe that these strategically placed, "on the spot," illustrated posters may help save lives!



Mrs. William R. McPhee
President

PLEASE NOTE!

A small version of the Heimlich Maneuver poster is published on the facing page for your convenience. We hope that you will clip it from the Journal to post in your own home or office.

County Society News

FIRST DISTRICT

COUNCILOR

JOHN N. MARTIN, M.D., ST. JOSEPH

BUCHANAN COUNTY MEDICAL SOCIETY

The Buchanan County Medical Society held a dinner, meeting and program on January 7 at the Ramada Inn in St. Joseph. Thirty-four persons attended.

Dr. G. Tyson Carpenter, newly installed President of the Society, presided.

Dr. Julius K. Sheppard introduced the speaker, Dr. Robert E. Kuhlman, Assistant Professor of Clinical Orthopedic Surgery at Washington University School of Medicine. Dr. Kuhlman currently is engaged in research on salvage of the arthritic knee under a grant from the Scottish Rite Foundation of Missouri. He discussed the topic at the meeting.

Mr. Kenneth L. McNeal, secretary of the St. Joseph Scottish Rite, arranged for the program. He and Mrs. Kuhlman, who accompanied her husband, were guests at the meeting.

Meeting arrangements were made by members of the Program Committee who were Dr. Robert R. Stuber, chairman, and Dr. Sheppard and Dr. Wallace McDonald.

CARL K. NESS, M.D., *Secretary*

GRAND RIVER MEDICAL SOCIETY

The Grand River Medical Society met on January 8 at the Chillicothe Country Club. A social hour and dinner preceded the program.

Dr. Fred Burry, M.D. of Mercy Hospital in Kansas City was the speaker for the evening. He discussed upper respiratory infections in the pediatric-

age group. His presentation was timely, informative and well received.

At a short business meeting, it was the unanimous decision of those present to name William A. Fuson, M.D. of Trenton as an honorary member of Grand River Medical Society and to recommend him for life honorary membership to the MSMA and the AMA.

Present were ten members of the Society and one guest, Dr. Lester E. Gallett of Marceline. Dr. Gallett formerly practiced in Minneapolis, Minn. and had planned to retire in Missouri. However, he has consented to do parttime work in Marceline.

WILLIAM L. FAIR, M.D., *Secretary*

SECOND DISTRICT

COUNCILOR

J. RUSSELL COMER, M.D., HANNIBAL

CHARITON-MACON-MONROE-RANDOLPH COUNTY MEDICAL SOCIETY

The regular monthly dinner meeting of the Chariton-Macon-Monroe-Randolph County Medical Society was held in the Library Conference Room of the Woodland Hospital in Moberly on January 8.

The program consisted of the presentation of unusual and interesting case reports.

Dr. Robert V. Tompson discussed two interesting cases of acute gangrenous appendicitis in which the appendix was found in a femoral hernia sac and another in which the appendix was found in a para-cecal sac. Dr. Rogelio Batutista reported a recent similar case.

Dr. Antonio Aguilera reported a case of inflamed Meckel's diverticulum associated with a two-foot length of cellulose-type material impacted in and obstructing the small bowel. Similar cases were discussed by other members.

Dr. C. C. Cohrs discussed a case of Crohn's disease involving the terminal ileum which presented with symptoms typical of a peptic ulcer. He reported his method of conservative medical treatment to which the patient is responding well. A general discussion of the use of steroids in the treatment of gastrointestinal problems followed.

Dr. Tompson reported a case of generalized neuropathy of unknown etiology. Neuropathies in general were discussed by the members.

To top off the evening's program, Dr. F. A. Barnett of Paris presented a talk on his recent trip to the American Medical Association meeting in Hawaii. He illustrated his talk with beautiful color slides taken of the five main islands of the Hawaiian

(Continued on page 92)





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Serum K⁺ and BUN should be checked periodically. (See Warnings Section.)



Before prescribing, see complete prescribing information in SK&F literature or PDR. The following is a brief summary.

* Warning

This fixed combination drug is not indicated for initial therapy of edema or hypertension. Edema or hypertension requires therapy titrated to the individual patient. If the fixed combination represents the dosage so determined, its use may be more convenient in patient management. The treatment of hypertension and edema is not static, but must be reevaluated as conditions in each patient warrant.

* **Indications:** *Edema:* That associated with congestive heart failure, cirrhosis of the liver, the nephrotic syndrome; steroid-induced and idiopathic edema; edema resistant to other diuretic therapy. *Mild to moderate hypertension:* Usefulness of the triamterene component is limited to its potassium-sparing effect.

Contraindications: Pre-existing elevated serum potassium. Hypersensitivity to either component. Continued use in progressive renal or hepatic dysfunction or developing hyperkalemia.

Warnings: Do not use dietary potassium supplements or potassium salts unless hypokalemia develops or dietary potassium intake is markedly impaired. Enteric-coated potassium salts may cause small bowel stenosis with or without ulceration. Hyperkalemia (>5.4 mEq/L) has

been reported in 4% of patients under 60 years, in 12% of patients over 60 years, and in less than 8% of patients overall. Rarely, cases have been associated with cardiac irregularities. Accordingly, check serum potassium during therapy, particularly in patients with suspected or confirmed renal insufficiency (e.g., elderly or diabetics). If hyperkalemia develops, substitute a thiazide alone. If spironolactone is used concomitantly with 'Dyazide', check serum potassium frequently—both can cause potassium retention and sometimes hyperkalemia. Two deaths have been reported in patients on such combined therapy (in one, recommended dosage was exceeded; in the other, serum electrolytes were not properly monitored). Observe patients on 'Dyazide' regularly for possible blood dyscrasias, liver damage or other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving Dyrenium (triamterene, SK&F). Rarely, leukopenia, thrombocytopenia, agranulocytosis, and aplastic anemia have been reported with the thiazides. Watch for signs of impending coma in acutely ill cirrhotics. Thiazides are reported to cross the placental barrier and appear in breast milk. This may result in fetal or neonatal hyperbilirubinemia, thrombocytopenia, altered carbohydrate metabolism and possibly other adverse reactions that have occurred in the adult. When used during pregnancy or in women who might bear children, weigh potential benefits against possible hazards to fetus.

Precautions: Do periodic serum electrolyte and

BUN determinations. Do periodic hematologic studies in cirrhotics with splenomegaly. Anti-hypertensive effects may be enhanced in post-sympathectomy patients. The following may occur: hyperuricemia and gout, reversible nitrogen retention, decreasing alkali reserve with possible metabolic acidosis, hyperglycemia and glycosuria (diabetic insulin requirements may be altered), digitalis intoxication (in hypokalemia). Use cautiously in surgical patients. Concomitant use with antihypertensive agents may result in an additive hypotensive effect. 'Dyazide' interferes with fluorescent measurement of quinidine.

Adverse Reactions: Muscle cramps, weakness, dizziness, headache, dry mouth; anaphylaxis; rash, urticaria, photosensitivity, purpura, other dermatological conditions; nausea and vomiting (may indicate electrolyte imbalance), diarrhea, constipation, other gastrointestinal disturbances. Necrotizing vasculitis, paresthesias, icterus, pancreatitis, xanthopsia and, rarely, allergic pneumonitis have occurred with thiazides alone.

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Effectiveness across the spectrum of most common forms of insomnia

Awake too long, awake too often, awake too early...

These are the most common forms of insomnia, and may occur singly or in any combination. The night of troubled sleep depicted here comprises all three types. As the night progresses from left to right, each sleep stage is identifiable by its own shade of gray. Blue represents "Awake."

As you can see, this hypothetical "patient" takes well over an hour to fall asleep, awakens several times during the middle of the night and awakens too early in the morning.

Sleep Stages

	Awake		Stage 2
	REM		Stage 3
	Stage 1		Stage 4

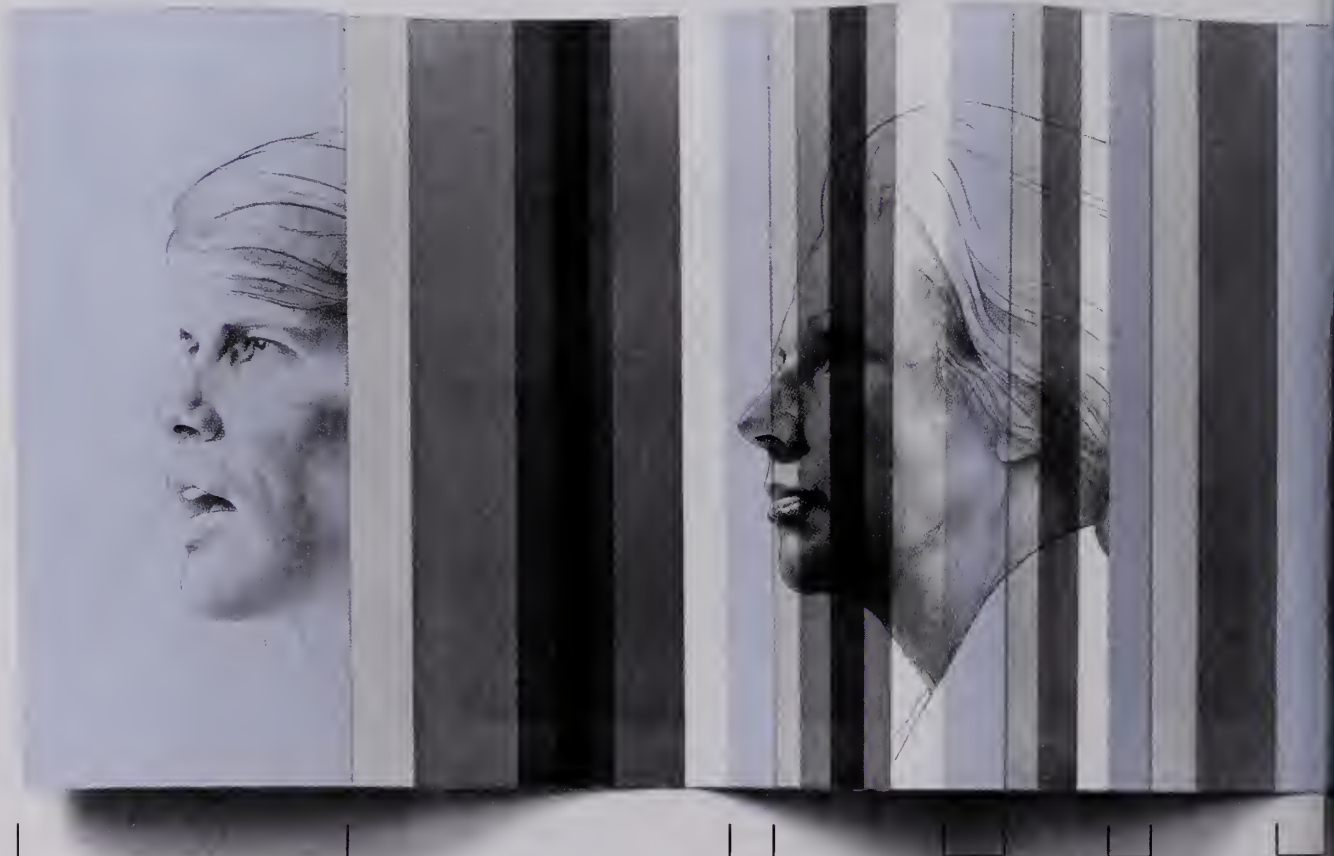
1

2

3

4

5



Awake too long

Awake too often during the night

The insomnias most often occurring in young and older adults

For patients with trouble falling asleep (common in young adult insomnia patients), Dalmane (flurazepam HCl) 30 mg provides sleep within 17 minutes, on average. For those with trouble staying asleep or sleeping long enough (common in those over 50), Dalmane offers increased total sleep time with fewer nocturnal awakenings. These clinical results were demonstrated in studies conducted in four geographically separated sleep research laboratories.¹⁻⁴

The relative safety of Dalmane (flurazepam HCl) is well documented

Dalmane (flurazepam HCl) is relatively safe and well tolerated; morning "hang-over" has been infrequent. The usual adult dosage is 30 mg; in elderly or debilitated patients, limit initial dosage to 15 mg to preclude over-sedation, dizziness or ataxia. Caution patients about possible combined effects with alcohol and other CNS depressants.

Broad-spectrum medication for the most common forms of insomnia

Dalmane[®] (flurazepam HCl)

One 30-mg capsule *h.s.* — usual adult dosage (15 mg may suffice in some patients).

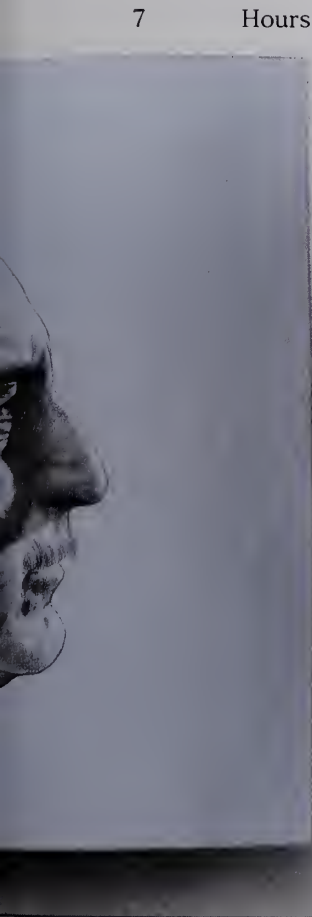
One 15-mg capsule *h.s.* — initial dosage for elderly or debilitated patients.

- ☐ induces sleep rapidly
- ☐ reduces nighttime awakenings
- ☐ lengthens total sleep time

ROCHE

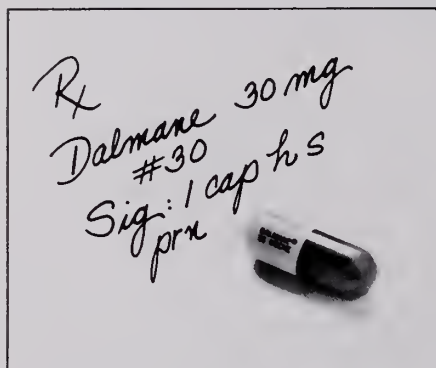
Please see following page for a summary of complete product information.

Awake too early



Broad-spectrum medication for the most common forms of insomnia

Dalmane® (flurazepam HCl) IV



Objectively proved in the sleep research laboratory, Dalmane

- induces sleep within 17 minutes, on average
- reduces nighttime awakenings
- provides 7 to 8 hours sleep, on average, without repeating dosage

Before prescribing Dalmane (flurazepam HCl), please consult complete product information, a summary of which follows:

Indications: Effective in all types of insomnia characterized by difficulty in falling asleep, frequent nocturnal awakenings and/or early morning awakening; in patients with recurring insomnia or poor sleeping habits; and in acute or chronic medical situations requiring restful sleep. Since insomnia is often transient and intermittent, prolonged administration is generally not necessary or recommended.

Contraindications: Known hypersensitivity to flurazepam HCl.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. Caution against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving). Use in women who are or may become pregnant only when potential benefits have been weighed against possible hazards. Not

recommended for use in persons under 15 years of age. Though physical and psychological dependence have not been reported on recommended doses, use caution in administering to addiction-prone individuals or those who might increase dosage.

Precautions: In elderly and debilitated, initial dosage should be limited to 15 mg to preclude oversedation, dizziness and/or ataxia. If combined with other drugs having hypnotic or CNS-depressant effects, consider potential additive effects. Employ usual precautions in patients who are severely depressed, or with latent depression or suicidal tendencies. Periodic blood counts and liver and kidney function tests are advised during repeated therapy. Observe usual precautions in presence of impaired renal or hepatic function.

Adverse Reactions: Dizziness, drowsiness, lightheadedness, staggering, ataxia and falling have occurred, particularly in elderly or debilitated patients. Severe sedation, lethargy, disorientation and coma, probably indicative of drug intolerance or overdosage, have been reported. Also reported were headache, heartburn, upset stomach, nausea, vomiting, diarrhea, constipation, GI pain, nervousness, talkativeness, apprehension, irritability, weakness, palpitations, chest pains, body and joint pains and GU complaints. There have also been rare occurrences of leukopenia, granulocytopenia, sweating, flushes, difficulty in focusing, blurred vision, burning eyes, faintness, hypotension, shortness of breath, pruritus, skin rash, dry mouth, bitter taste, excessive salivation, anorexia, euphoria, depression, slurred speech, confusion, restlessness, hallucinations, and elevated SGOT, SGPT, total and direct bilirubins and alkaline phosphatase. Paradoxical reactions, e.g., excitement,

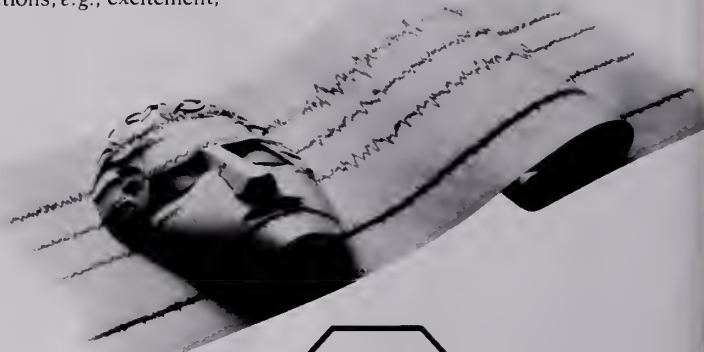
stimulation and hyperactivity, have also been reported in rare instances.

Dosage: Individualize for maximum beneficial effect. *Adults:* 30 mg usual dosage; 15 mg may suffice in some patients. *Elderly or debilitated patients:* 15 mg initially until response is determined.

Supplied: Capsules containing 15 mg or 30 mg flurazepam HCl.

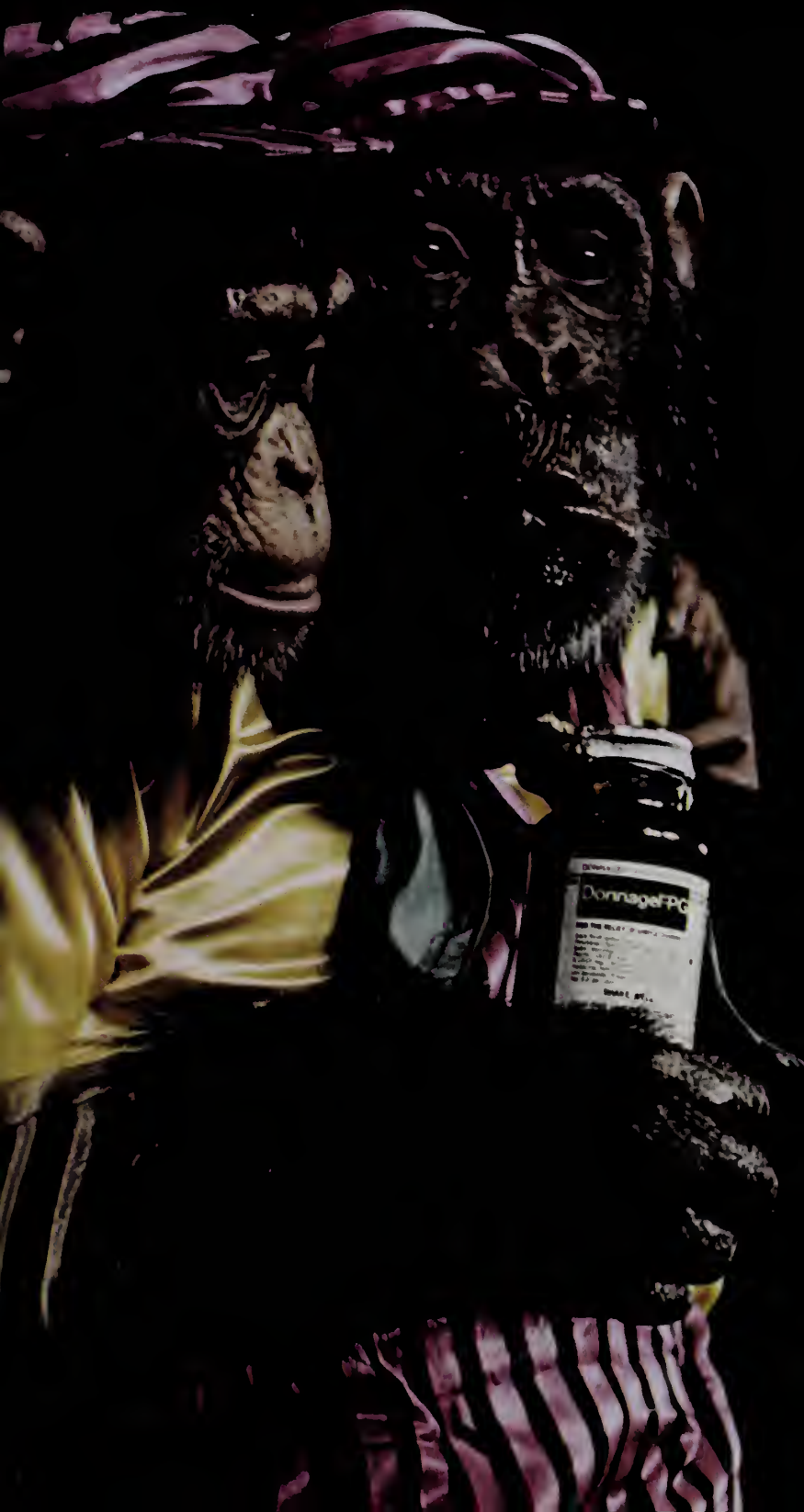
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1. Karacan I, Williams RL, Smith JR: The sleep laboratory in the investigation of sleep and sleep disturbances. Scientific exhibit at the 124th annual meeting of the American Psychiatric Association, Washington DC, May 3-7, 1971
2. Frost JD Jr: A system for automatically analyzing sleep. Scientific exhibit at the 24th Clinical Convention of the American Medical Association, Boston, Nov 29-Dec 2, 1970; and at the 42nd annual scientific meeting of the Aerospace Medical Association, Houston, Apr 26-29, 1971
3. Vogel GW: Data on file, Medical Department, Hoffmann-La Roche Inc., Nutley NJ
4. Dement WC: Data on file, Medical Department, Hoffmann-La Roche Inc., Nutley NJ



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Nutley, New Jersey 07110

"Kid, this stuff is the bananas."



Experts agree: when it comes to good-tasting banana flavor—without the unpleasant taste of paregoric—the makers of Donnagel[®]-PG really know their stuff!

For diarrhea Donnagel-PG[®]

Donnagel with paregoric equivalent

Each 30 cc. contains:

Kaolin	6.0 g.
Pectin	142.8 mg.
Hyoscyamine sulfate	0.1037 mg.
Atropine sulfate	0.0194 mg.
Hyoscine hydrobromide	0.0065 mg.
Powdered opium, USP (equivalent to paregoric 6 ml.) (warning: may be habit forming)	24.0 mg.
Sodium benzoate (preservative)	60.0 mg.
Alcohol, 5%	

Now with child-proof closure

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A. H. Robins Company
Richmond, Virginia 23220

**IN COUGHS
OF COLDS,
'FLU' AND U.R.I.:
CLEAR
THE
TRACT
WITH THE
ROBITUSSIN[®]
LINE**



THE 5 RELIABLE ROBITUSSINS can really help clear the respiratory tract. All contain guaifenesin,* the expectorant that works systematically to help stimulate the output of lower respiratory tract fluid. This enhanced flow of less viscid secretions promotes ciliary action and makes thick, inspissated mucus less viscid and easier to raise.

*Formerly named Glyceril Guaiacolate

For productive and unproductive coughs

ROBITUSSIN®

Each 5 ml teaspoonful contains:

Guaifenesin, NF. 100 mg
Alcohol, 3.5%

For severe coughs

ROBITUSSIN A-C®

Each 5 ml teaspoonful contains:

Guaifenesin, NF. 100 mg
Codeine Phosphate, USP. 10.0 mg
(warning: may be habit forming)
Alcohol, 3.5%

Non narcotic for 6-8-hr. cough control

ROBITUSSIN-DM®

Each 5 ml teaspoonful contains:

Guaifenesin, NF. 100 mg
Dextromethorphan Hydrobromide, NF. 15 mg
Alcohol, 1.4%

Decongests nasal passages and sinus openings as it helps relieve coughs

ROBITUSSIN-PE®

Each 5 ml teaspoonful contains:

Guaifenesin, NF. 100 mg
Pseudoephedrine** Hydrochloride, NF. 30 mg
Alcohol, 1.4%

**Formerly contained Phenylephrine Hydrochloride 10 mg

Decongestant action helps control cough and clear stuffy nose and sinuses. Non narcotic.

ROBITUSSIN-CF®

Each 5 ml teaspoonful contains:

Guaifenesin, NF. 50 mg
Phenylpropanolamine Hydrochloride, NF. 12.5 mg
Dextromethorphan Hydrobromide, NF. 10 mg
Alcohol, 1.4%

All Robitussin formulations available on your Rx or Recommendation.

A. H. Robins Company, Richmond, Va. 23220 **A-H ROBINS**

For many years Robins has spotlighted the expectorant action of the Robitussin cough formulations by featuring action photographs of steam engines. In keeping with this tradition, the company recently commissioned a well-known illustrator to render full-color drawings of several classic locomotives...accurate to the minutest detail. The first of the series is now available. To order your print suitable for framing, write "Robitussin Clear-Tract Engine #1" on your Rx pad and mail to "Vintage Locomotives," Dept. T4, A. H. Robins Company, 1407 Cummings Drive, Richmond, Va. 23220.



The William Mason (1856)

chain. He wore a colorful Aloha shirt during his presentation.

Those attending the meeting were Drs. Aguilera, Bautista, Cohrs, W. D. Chute, T. S. Fleming, Jose M. Hari, L. E. Huber, G. R. Hudson, Mike Tan and R. V. Tompson of Moberly; F. A. Barnett, Paris; J. E. Campbell, Macon; and P. V. Dreyer, Huntsville. Dr. Leopold Lachance of Centralia was a guest.

G. R. HUDSON, M.D., *Secretary*

SIXTH DISTRICT

COUNCILOR

WILLIAM D. BRADSHAW, M.D., CLINTON

LAFAYETTE-RAY COUNTY MEDICAL SOCIETY

The regular monthly meeting of Lafayette-Ray County Medical Society was held on January 13 at Maude and Kelly's Kitchen in Lexington. Those in attendance were Dr. Catherine Boydston, Odessa; Dr. and Mrs. Hugh S. Brady and Dr. and Mrs. Jerry L. Meyer, Concordia; Dr. and Mrs. Joe Ward, Dr. and Mrs. Manoch Kuangparichat and Dr. J. S. Cope, Lexington; Dr. and Mrs. Jordan Kelling and Dr. and Mrs. Robert R. Pavlu, Waverly; and Dr. and Mrs. C. T. Riley, Richmond. Guests included Mrs. W. E. Martin, Odessa; Mrs. William R. McPhee, Kansas City; Mrs. George P. Wilson, Columbia; Mr. Don Wilson, Jefferson City, MSMA Field Secretary; and Mr. Asa Steen, Kansas City.

After dinner, Dr. Robert Pavlu, President of the

Society, called the meeting to order. He appointed Dr. Kelling, Dr. Riley and Dr. Meyer as a committee to nominate a candidate from the Society for the Kansas City Area Blue Cross board of directors.

Don Wilson, MSMA Field Secretary, was introduced and spoke in regard to current legislation in Missouri, specifically in relation to Senate Bills #470, #471 and #472 which deal with the statute of limitations, medical screening panels and state board powers, respectively. He also spoke briefly about the upcoming MSMA Annual Session at Crown Center Hotel in Kansas City and encouraged delegates and members to participate actively.

Mrs. Hugh Brady, President of the Woman's Auxiliary to the Lafayette-Ray County Medical Society, introduced Mrs. William R. McPhee, President of the MSMA Woman's Auxiliary, and Mrs. George P. Wilson, President-Elect of the MSMA Auxiliary. Mrs. McPhee spoke briefly about the interesting events in store for all physician's wives and Auxiliary members at the Annual Session on April 1-4.

Mr. Steen represented the Kansas City Metropolitan Association to Combat Sexual Assault. He is an associate member of the K.C. Police Department and presented an interesting talk about rape statistics in the eight-county area, self-defense programs, prosecution and the rehabilitation of offenders.

CATHERINE BOYDSTON, M.D., *Secretary*

1976 Physician Survey

Registration notices will be mailed to physicians soon. As in 1975, you will receive a questionnaire with your renewal notice. The items included in the survey have been developed by the Division of Health with the cooperation of the State Board of Registration for the Healing Arts and the Missouri State Medical Association. They reflect the needs of numerous data users at the local, state and national levels. Some of the items have been designed uniquely for the medical profession, while others are intended to permit broad comparison of physicians with other health professionals such as dentists and nurses.

The format of the 1976 Survey has undergone

substantial revision. For many of the items, your response from last year will be preprinted on the survey. The purpose of this is twofold. First, it will give each physician the opportunity to review and correct, if necessary, the information on file. Even more importantly, the revisions are intended to reduce the time required to complete the survey.

Questions regarding the survey or results obtained from 1975 can be referred to Barbara Hoskins, Director, Bureau of Health Resources Statistics, Missouri Division of Health, Jefferson City, Mo. 65101.

The fine response last year was appreciated and physicians are urged to continue cooperation.

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THE LAST WORD IN MEDICAL SUPPLIES.



TOPEKA-KANSAS CITY-WICHITA-ST LOUIS-TULSA

In Memoriam

Edward F. Sievers, M.D., 3001 S. Ocean Dr., Hollywood Beach, Fla. 33020, a graduate of St. Louis University, 1920; member St. Louis Medical Society; age 80; died Aug. 1975.

David S. Dann, M.D., 4949 Rockhill Rd., Kansas City 64110, a graduate of Columbia P. & S., 1919; member Jackson County Medical Society; age 79; died Nov. 5, 1975.

Ajit K. Coudhuri, M.D., 1420 Grattan, St. Louis 63104, a graduate of Nilratan Sakuar Medical College, 1958; member St. Louis County Medical Society; age 44; died Nov. 19, 1975.

John R. Roberts, M.D., 8649 Rosalie, St. Louis 63144, a graduate of St. Louis University, 1926; member St. Louis County Medical Society; age 79; died Nov. 26, 1975.

Samuel R. Banet, M.D., 31 Long Way, Clearwater, Fla. 33513, a graduate of St. Louis University, 1938; member St. Louis Medical Society; age 67; died Dec. 25, 1975.

John A. Sterling, M.D., 1230 Kenmore Dr., St. Louis 63122, a graduate of St. Louis University, 1925; member St. Louis County Medical Society; age 89; died Dec. 26, 1975.

William F. Neun, M.D., 5862 Delor, St. Louis 63109, a graduate of St. Louis University, 1919; member St. Louis Medical Society; age 79; died Dec. 28, 1975.

Leon P. Forgrave, M.D., 1 Hundley Dr., St. Joseph 64506, a graduate of Rush Medical College, 1911; member Buchanan County Medical Society; age 90; died Dec. 29, 1975.

Gaetano Bazzano, M.D., 34 Washington Terrace, St. Louis 63112, a graduate of the University of Rome, 1956; member St. Louis Medical Society; age 43; died Dec. 29, 1975.

Bertram L. Bersche, M.D., 23 Beaver Rd., St. Louis 63141, a graduate of Washington University, 1922; member St. Louis Medical Society; age 79; died Dec. 30, 1975.

Donald H. Giesler, M.D., Osceola 64776, a graduate of the University of Tennessee, 1947; member West Central Missouri Medical Society; age 53; died Jan. 21, 1976.

PRESCRIBING INFORMATION Antiminth (pyrantel pamoate) Oral Suspension

Actions. Antiminth (pyrantel pamoate) has demonstrated anthelmintic activity against *Enterobius vermicularis* (pinworm) and *Ascaris lumbricoides* (roundworm). The anthelmintic action is probably due to the neuromuscular blocking property of the drug.

Antiminth is partially absorbed after an oral dose. Plasma levels of unchanged drug are low. Peak levels (0.05-0.13 µg/ml.) are reached in 1-3 hours. Quantities greater than 50% of administered drug are excreted in feces as the unchanged form, whereas only 7% or less of the dose is found in urine as the unchanged form of the drug and its metabolites.

Indications. For the treatment of ascariasis (roundworm infection) and enterobiasis (pinworm infection).

Warnings. *Usage in Pregnancy:* Reproduction studies have been performed in animals and there was no evidence of propensity for harm to the fetus. The relevance to the human is not known.

There is no experience in pregnant women who have received this drug.

Precautions. Minor transient elevations of SGOT have occurred in a small percentage of patients. Therefore, this drug should be used with caution in patients with pre-existing liver dysfunction.

Adverse Reactions. The most frequently encountered adverse reactions are related to the gastrointestinal system.

Gastrointestinal and hepatic reactions: anorexia, nausea, vomiting, gastralgia, abdominal cramps, diarrhea and tenesmus, transient elevation of SGOT.

CNS reactions: headache, dizziness, drowsiness, and insomnia. Skin reactions: rashes.

Dosage and Administration. *Children and Adults:* Antiminth Oral Suspension (50 mg. of pyrantel base/ml.) should be administered in a single dose of 11 mg. of pyrantel base per kg. of body weight (or 5 mg./lb.); maximum total dose 1 gram. This corresponds to a simplified dosage regimen of 1 cc. of Antiminth per 10 lb. of body weight. (One teaspoonful = 5 cc.)

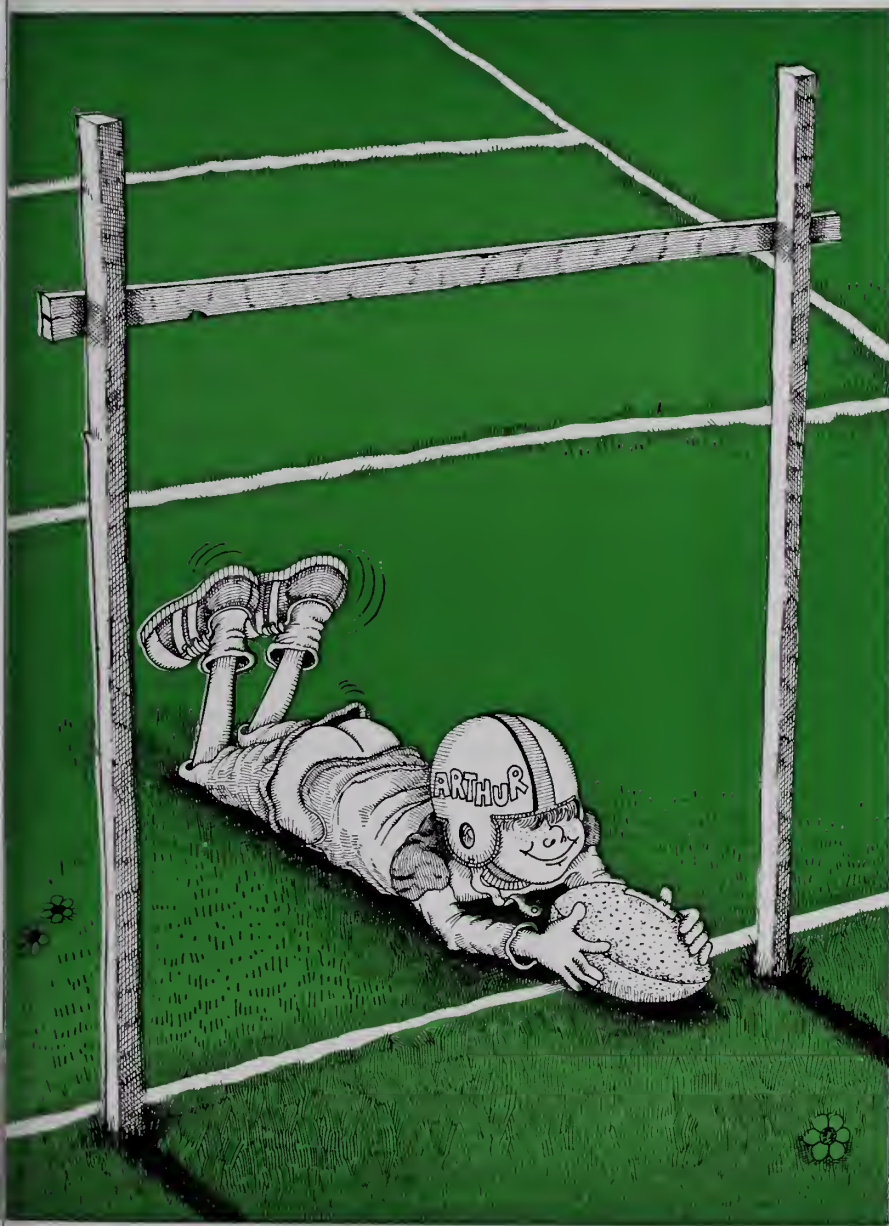
Antiminth (pyrantel pamoate) Oral Suspension may be administered without regard to ingestion of food or time of day, and purging is not necessary prior to, during, or after therapy. It may be taken with milk or fruit juices.

How Supplied. Antiminth is available as a pleasant tasting caramel-flavored suspension which contains the equivalent of 50 mg. pyrantel base per ml., supplied in 60 cc. bottles and Unitcups™ of 5 cc. in packages of 12.

ROERIG 

A division of Pfizer Pharmaceuticals
New York, New York 10017

WORMS BLITZED



A single dose of Antiminth (1 cc. per 10 lbs. of body weight, 1 tsp./50 lbs.—maximum dose, 4 tsp.=20 cc.) offers highly effective control of *both* pinworms and roundworms.

Antiminth has been shown to be extremely well tolerated by children and adults alike in clinical studies.* Pleasantly caramel-flavored, it is non-staining to teeth and oral mucosa on ingestion... doesn't stain stools, linen or clothing.

One prescription can economically treat the entire family.

ROERIG 

A division of Pfizer Pharmaceuticals
New York, New York 10017

NSN 6505-00-148-6967

**Pinworms, roundworms controlled
with a single, non-staining dose of**

ANTIMINTH[®]
(pyrantel pamoate)

equivalent to 50 mg pyrantel/ml.
ORAL SUSPENSION

New Members

Onssy H. Anis, M.D., 807 Stadium, Columbia 65201, has become a member of Boone County Medical Society. Dr. Anis is a native of Egypt, received his preliminary education at the Faculty of Science Cairo University and his M.D. degree at Cairo University in 1960. He specializes in radiation oncology.

John B. Bennett, M.D., 6150 Oakland, St. Louis 63139, has become a member of St. Louis Medical Society. Dr. Bennett is a native of England and received his M.D. degree at St. Catherine and Oxford University in 1968. He is an intern.

Arnold G. Brody, M.D., 3535 S. Jefferson, St. Louis 63118, has become a member of St. Louis County Medical Society. Dr. Brody is a native of Chicago, Ill., received his preliminary education at Northwestern University and his M.D. degree at the University of Illinois in 1960. He is in family practice.

Kenneth D. Corwin, M.D., 777 S. New Ballas Rd., St. Louis 63141, has become a member of St. Louis County Medical Society. Dr. Corwin is a native of St. Louis, received his preliminary education at Central Methodist College and his M.D. degree at the University of Missouri in 1964. He specializes in plastic surgery.

Harry C. Cundiff, Jr., M.D., 807 Stadium, Columbia 65201, has become a member of Boone County Medical Society. Dr. Cundiff is a native of St. Louis, received his preliminary education at Cornell University and his M.D. degree at the University of Missouri in 1974. He specializes in ophthalmology.

Hedayatollah Elyassi, M.D., 807 Stadium, Columbia 65201, has become a member of Boone County Medical Society. Dr. Elyassi is a native of Iran, received his preliminary education at Tehran University and his M.D. degree at Tehran University in 1967. He specializes in anesthesiology.

Ted D. Groshong, M.D., 807 Stadium, Columbia 65201, has become a member of Boone County Medical Society. Dr. Groshong is a native of Los Angeles, Calif., received his preliminary education at the University of Missouri and his M.D. degree at the University of Missouri in 1967. He specializes in pediatrics, nephrology and immunology.

Alejandro Horochowski, M.D., 808 Cornell, Columbia 65201, has become a member of Boone County Medical Society. Dr. Horochowski is a na-

tive of Argentina, received his preliminary education at Col. Nacional de San Isidro and his M.D. degree at the University of Buenos Aires in 1958. He specializes in general surgery.

David Killebrew, M.D., Barnes Hospital, St. Louis 63110, has become a member of St. Louis Medical Society. Dr. Killebrew is a native of Indiana, received his preliminary education at the University of Michigan and his M.D. degree at the University of Michigan in 1973. He specializes in otorhinolaryngology.

Kil Soo Lee, M.D., Rm. 105, Northland Medical Bldg., Jennings 63136, has become a member of St. Louis County Medical Society. Dr. Lee is a native of Kil-Lim, Manchuria, received his preliminary education at Seoul National University and his M.D. degree at Seoul National University in 1964. He specializes in radiology.

Bert J. Mackaman, M.D., 807 Stadium, Columbia 65201, has become a member of Boone County Medical Society. Dr. Mackaman is a native of Dallas, Tex., received his preliminary education at the United States Naval Academy and his M.D. degree at the University of Texas in 1974. He specializes in dermatology.

George S. Mendelsohn, M.D., 5505 Delmar, St. Louis 63112, has become a member of St. Louis Medical Society. Dr. Mendelsohn is a native of New York, received his preliminary education at Harvard College and his M.D. degree at Harvard Medical School in 1966. He specializes in neurosurgery.

S. S. Mujumdar, M.D., 3015 N. Ballas Road, St. Louis 63131, has become a member of St. Louis Medical Society. Dr. Mujumdar is a native of India, received her M.D. degree at B. J. Medical College in 1968. She specializes in obstetrics and gynecology.

William A. Murphy, M.D., 510 S. Kingshighway, St. Louis 63110, has become a member of St. Louis Medical Society. Dr. Murphy is a native of Pittsburgh, Pa., received his preliminary education at the University of Pittsburgh and his M.D. degree at Pennsylvania State University in 1971. He specializes in radiology.

Joseph A. O'Neill, M.D., 807 Stadium, Columbia 65201, has become a member of Boone County Medical Society. Dr. O'Neill is a native of El Paso, Tex., received his preliminary education at St. Mary's University and his M.D. degree at St. Louis University in 1968. He specializes in radiology.

Gary J. Peterson, M.D., 7789 Keswick Place, St.

Louis 63119, has become a member of St. Louis Medical Society. Dr. Peterson is a native of Illinois, received his preliminary education at Southern Illinois University and his M.D. degree at St. Louis University in 1973. He specializes in surgery.

Vinai Piratanonta, M.D., 2601 N. Whittier, St. Louis 63113, has become a member of St. Louis Medical Society. Dr. Piratanonta is a native of Thailand, received his preliminary education at Mahidol University and his M.D. degree at Chulalongkorn University in 1968. He specializes in otolaryngology.

Phillip W. Pitney, M.D., 211 S. 3rd, Louisiana 63353, has become a member of Pike County Medical Society. Dr. Pitney is a native of Kansas City, received his preliminary education at the University of Missouri and his M.D. degree at the University of Missouri in 1972. He is in family practice.

Lowell K. Pottenger, M.D., 107 Medical Arts Bldg., Joplin 64801, has become a member of Jasper County Medical Society. Dr. Pottenger is a native of Aurora, received his preliminary education at the University of Missouri and his M.D. degree at the University of Missouri in 1966. He specializes in diagnostic radiology.

Kenneth S. Rotskoff, M.D., 911 S. Brentwood, St. Louis 63105, has become a member of St. Louis Medical Society. Dr. Rotskoff is a native of St. Louis, received his preliminary education at Washington University and his M.D. degree at Washington University in 1975. He specializes in oral-maxillofacial surgery.

Bellande Saint-Louis, M.D., 2601 N. Whittier, St. Louis 63113, has become a member of St. Louis Medical Society. Dr. Saint-Louis is a native of Haiti, received his preliminary education at Port-au-Prince and his M.D. degree at the State University of Haiti in 1967. He specializes in radiology.

Abdul R. Samady, M.D., 1325 S. Grand, St. Louis 63104, has become a member of St. Louis Medical Society. Dr. Samady is a native of Afghanistan, received his preliminary education in Habibia College and his M.D. degree at Kabul University in 1959. He specializes in anesthesiology.

David D. Scherr, M.D., 1433 Southwest Blvd., Jefferson City 65101, has become a member of Cole County Medical Society. Dr. Scherr is a native of Columbia, received his preliminary education at the University of Missouri and his M.D. degree at the University of Missouri in 1959. He specializes in orthopaedic surgery.

Abdul R. Sheikh, M.D., Oakland Ave., St. Louis

63139, has become a member of St. Louis County Medical Society. Dr. Sheikh is a native of Pakistan, received his preliminary education at D. J. Science College and his M.D. degree at Royal College of Surgeons in 1968. He specializes in general surgery.

Stanley D. Sides, M.D., 2014 Beth Dr., Cape Girardeau 63701, has become a member of Cape Girardeau County Medical Society. Dr. Sides is a native of St. Louis, received his preliminary education at Southwest State College and his M.D. degree at the University of Missouri in 1968. He specializes in hematology and oncology.

R. V. Simpelo, M.D., Austin Plaza, Potosi 63664, has become a member of Mineral Area Medical Society. Dr. Simpelo is a native of the Philippines, received his preliminary education at the University of Santo Tomas and his M.D. degree at the University of Santo Tomas in 1962. He specializes in general surgery.

Shu-Ying Turng, M.D., 2249 Dunroyal, St. Louis 63131, has become a member of St. Louis Medical Society. Dr. Turng is a native of Korea, received her M.D. degree at National University of Mexico in 1971. She specializes in internal medicine and sub-specialty is nephrology.

Richard Villalobos, M.D., 10258 Madowood, St. Louis 63114, has become a member of St. Louis County Medical Society. Dr. Villalobos is a native of Mexico, received his preliminary education at the French British College and his M.D. degree at the National University of Mexico in 1971. He specializes in internal medicine.

Jay W. Ward, M.D., 401 Keene, Columbia 65201, has become a member of Boone County Medical Society. Dr. Ward is a native of Springfield, received his preliminary education at the University of Missouri and his M.D. degree at the University of Missouri in 1969. He specializes in gastroenterology.

Howard Weiss, M.D., 12939 Camphill Ct., St. Louis 63141, has become a member of St. Louis Medical Society. Dr. Weiss is a native of St. Louis, received his preliminary education at Tulane University and his M.D. degree at Tulane University in 1972. He specializes in neurology.

Fanton A. Williams, M.D., 2525 Euclid, Kansas City 64137, has become a member of Jackson County Medical Society. Dr. Williams is a native of St. Joseph, received his preliminary education at Blackburn College and his M.D. degree at Howard University in 1967. He specializes in radiology.

The Council Reports

(Continued from page 62)

no longer participate in nor send official representation to the Board of Directors of the Missouri Support Center until such time as Northwest Mo/PSRO is convinced that our objections to the Support Center structure and operation have been addressed and sufficiently resolved so as to accommodate the position of Northwest Mo/PSRO."

During a discussion of this matter, it was suggested that a medical representative from each of the five PSRO areas in the state and Dr. Clem Grebel of the PSRO Support Center be invited to the next Council Meeting to bring the Council up to date on this matter.

District #9—Dr. Cooper stated that most of the concerns in his area had been covered by other Councilors, but that he wished to express particular interest in the remarks about HSAs. Dr. Cooper reported that most of the doctors in his district were interested in the MSMA Legislative program and would contact their legislators.

District #10—Dr. Hansbrough reported that the Senate Select Committee on Malpractice held a hearing in Cape Girardeau and that quite a few physicians attended this hearing. Dr. Hansbrough invited all those present to a Southeast Missouri Regional EMS seminar that will be held in his area. This seminar will be presented by local people on local problems.

Dr. Hansbrough reported that four physicians were active in the local HSA organization. Dr. Hansbrough stated that malpractice is a problem and that concern had been expressed in his area about whether or not a mutual assessment company would be effective. Dr. Hansbrough said that he would ask the members of the medical societies in his District to read the yellow sheet in *MISSOURI MEDICINE* in order that they might better keep up to date on current problems.

District #8—Dr. McAlhany reported that PSRO Area IV had submitted an application to become conditional. Dr. McAlhany thanked Dr. Chandler for his comments contained in a recent President's Page in *MISSOURI MEDICINE* which complimented Greene County on a meeting which Dr. Malcolm Todd, AMA President, had attended.

Dr. McAlhany reported that in October, the Governor's Task Force on Malpractice approved eight items to be pre-filed and introduced into the upcoming session of the General Assembly. Seven of these eight items have now been pre-filed.

Dr. Peterson stated that Dr. James Sammons, Executive Vice-President of the AMA, will attend the Greene County installation on January 31.

MISSOURI CANCER PROGRAMS, INC.

Dr. John Yarbrow, Executive Director of Missouri Cancer Programs, Inc. stated that in 1971, legislation was developed to provide funding for cancer programs. The two main elements of this legislation were (1) to have available to each physician the information and drugs necessary to insure that the patient would get the best possible care and (2) to develop cooperative programs involving the joint efforts of people in cancer centers and the practicing physicians in order to improve the quality of cancer care at the local level. These cooperative programs could provide the practicing physician with access to new drugs and the latest treatment information which could be provided to his patient at a local hospital rather than referring a patient to a cancer center.

As a result of this legislation, Missouri Cancer Programs was formed. Missouri Cancer Programs is a joint effort on the part of the medical schools, osteopathic schools, the

state cancer hospital and several other institutions to work on a statewide cancer program. Missouri Cancer Programs has applied for a grant and will have site visits in the near future.

During discussion of this program, Dr. Yarbrow pointed out that there was a program in Massachusetts, but he does not as yet know just what the Missouri program would entail.

A motion was made by Dr. Franklin to accept this report for information. Motion was seconded and carried.

Dr. Joseph White stated that he was representing the Board of the Missouri Cancer Programs, and that it was the intent of the Board to expand the membership of the Board to include representation from various organizations interested in cancer programs in the state. Dr. White stated that the Board would like for the MSMA to name a representative to the Board of the Missouri Cancer Programs. Dr. Eugene T. Hansbrough of Poplar Bluff was appointed to serve as MSMA representative on the Board of the Missouri Cancer Programs.

REPORT OF THE FIELD SECRETARY

Mr. Wilson reported that at the last Council Meeting, he had indicated that he hoped to be able to shift emphasis on activities and attend more medical society meetings. He stated that he has not been able to do this to a great extent because of the need to maintain membership contact and information update.

Mr. Wilson reported that he had attended six different committee meetings in regard to HSA Area II. He expressed his appreciation to the Auxiliary for sitting in on these meetings and auditing them.

Mr. Wilson reported that he is trying to get more meaningful input into the urban areas. He indicated that he had done some groundwork in St. Louis.

Dr. Chandler stated that he had gotten some feedback on Mr. Wilson's work and all reports had indicated that the membership is highly appreciative of Mr. Wilson's work.

REPORT OF TASK FORCE ON "CERTIFICATE OF NEED LEGISLATION"

Dr. Ritter reported that some modifications had been made in the certificate of need legislation and he felt these would be acceptable to MSMA. Essentially, the modification would provide that physicians' offices would not be involved unless they are buying equipment that had a value of \$100,000 or more.

This legislation will be introduced into the Senate by Senators Murray and Spradling.

Dr. Ritter discussed an amendment proposed by the Osteopathic Association. Dr. Matthews stated that this legislation had been discussed by the Legislative Committee and a meeting had been held to discuss this with the osteopaths. Dr. Ritter indicated that there had been a test case on this legislation in Wisconsin.

After discussion on this legislation, motion was made by Dr. Bradshaw that the Council take no stand at the present time, but reconsider our position in January when more information is available. Motion was seconded and carried.

REPORT OF THE LEGISLATIVE COMMITTEE

Dr. Matthews reported that several malpractice bills had been pre-filed. These are as follows and Council approval is recommended:

Senate Select Committee Pre-Filed Bills:

Senate Bill 470—Maintains our excellent Statute of Limitations for the filing of malpractice suits within two years from the date of the act and proposes that a minor under

Look at all the Continuing Medical Education opportunities the AMA has planned for you in 1976!



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April 3, 4	Indianapolis, Ind.
April 3, 4	Detroit, Mich.
May 9	Dallas, Tex.
Sept. 4, 5	Jackson Hole, Wyo.
Sept. 11, 12	Milwaukee, Wis.
Sept. 10-12	Portsmouth, N.H.

125th ANNUAL CONVENTION

June 26-30	Dallas, Tex.
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30th CLINICAL CONVENTION

Dec. 4-7	Philadelphia, Pa.
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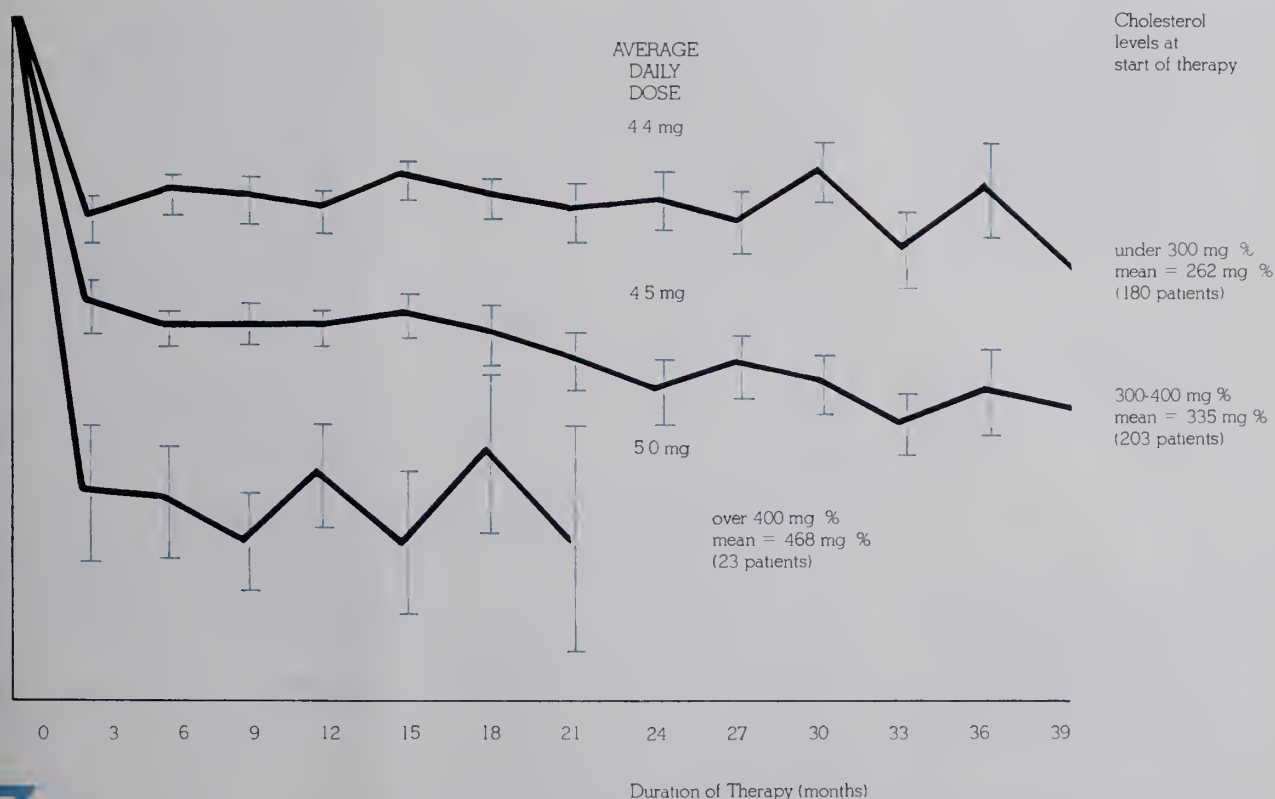
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It has not been established whether the drug-
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on the morbidity or mortality due to atheroscle-
rosis or coronary heart disease. Several years will
be required before current investigations will
yield an answer to this question.

CHOLOXIN (Sodium Dextrothyroxine) is a thyroid
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cholesterol 15 to 35% (see chart below) in low
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CHOLOXIN[®] (sodium dextrothyroxine) Single-Tablet-A-Day Dosage Schedules

See prescribing information in package insert reproduced below

	Starting Dosage	Increased Monthly by	Usual Maintenance	Maximal Recommended
Adult Hypercholesterolemic	1 0-2 0 mg	1 0-2 0 mg	4 0-8 0 mg	4 0-8 0 mg
Pediatric Hypercholesterolemic	0 05 mg /kg body weight	0 05 mg /kg	0 1 mg /kg body weight	4 0 mg
Hypothyroid Cardiac	0 5-1 0 mg	1 0 mg	4 0 mg	4 0 mg

Description
CHOLOXIN (sodium dextrothyroxine) is the sodium salt of the dextroisotactic isomer of thyroxine. It is chemically described as D-3,5,3',5'-tetraiodothyronine sodium salt.

Actions
The predominant effect of CHOLOXIN (sodium dextrothyroxine) is the reduction of serum cholesterol levels in hyperlipidemic patients. Beta lipoprotein and triglyceride fractions may also be reduced from previously elevated levels.
Most of the available evidence indicates that CHOLOXIN stimulates the liver to increase catabolism and excretion of cholesterol and its degradation products via the biliary route into the feces. Cholesterol synthesis is not inhibited and abnormal metabolic end products do not accumulate in the blood.

Indications
This is not an innocuous drug. Strict attention should be paid to the indications and contraindications.
CHOLOXIN (sodium dextrothyroxine) is an antilipidemic agent used as an adjunct to diet and other measures for the reduction of elevated serum cholesterol (low density lipoproteins) in euthyroid patients with no known evidence of organic heart disease.
The drug is also indicated in the treatment of hypothyroidism in patients with cardiac disease who cannot tolerate other types of thyroid medication.
Before prescribing, note the following. Results from a randomized clinical study have indicated a possible adverse effect when CHOLOXIN (sodium dextrothyroxine) is administered to a patient receiving a digitalis preparation. There may be an additive effect. This additive effect may possibly stimulate the myocardium excessively in patients with significant myocardial impairment. CHOLOXIN (sodium dextrothyroxine) dosage should not exceed 4 mg per day when the patient is receiving a digitalis preparation concomitantly. Careful monitoring of the total effect of both drugs is important.
It has not been established whether the drug-induced lowering of serum cholesterol or lipid levels has a detrimental, beneficial, or no effect on the morbidity or mortality due to atherosclerosis or coronary heart disease. Several years will be required before current investigations will yield an answer to this question.

Contraindications
The administration of CHOLOXIN (sodium dextrothyroxine) to euthyroid patients with one or more of the following conditions is contraindicated:
1 Known organic heart disease, including angina pectoris, history of myocardial infarction, cardiac arrhythmia or tachycardia, either active or in patients with demonstrated propensity for arrhythmias, rheumatic heart disease, history of congestive heart failure, and decompensated or borderline compensated cardiac status.
2 Hypertensive states (other than mild labile systolic hypertension).
3 Advanced liver or kidney disease.
4 Pregnancy.
5 Nursing mothers.
6 History of iodism.

Warnings
CHOLOXIN (sodium dextrothyroxine) may potentiate the effects of anticoagulants on prothrombin time. Reductions of anticoagulant dosage by as much as 30% have been required in some patients. Consequently, the dosage of anticoagulants should be reduced by one-third upon initiation of CHOLOXIN (sodium dextrothyroxine) therapy and the dosage subsequently readjusted on the basis of prothrombin time. The prothrombin time of patients receiving anticoagulant therapy concomitantly with CHOLOXIN (sodium dextrothyroxine) therapy should be observed as frequently as necessary, but at least weekly, during the first few weeks of treatment.
In the surgical patient, it is wise to consider withdrawal of the drug two weeks prior to surgery if the use of anticoagulants during surgery is contemplated.
When CHOLOXIN (sodium dextrothyroxine) is used as thyroid replacement therapy in hypothyroid patients with concomitant coronary artery disease (especially those with a history of angina pectoris or myocardial infarction) or other cardiac disease, treatment should be initiated with care. Special consideration of the dosage schedule of CHOLOXIN (sodium dextrothyroxine) is required. This drug may increase the oxygen requirements of the myocardium, especially at high dosage levels. Treated subjects with coronary artery disease must be seen at

frequent intervals. If aggravation of angina or increased myocardial ischemia, cardiac failure or clinically significant arrhythmia develops during the treatment of hypothyroid patients, the dosage should be reduced or the drug discontinued.
Special consideration must be given to the dosage of other thyroid medications used concomitantly with CHOLOXIN (sodium dextrothyroxine). As with all thyroid-active drugs, hypothyroid patients are more sensitive to a given dose of CHOLOXIN (sodium dextrothyroxine) than euthyroid patients.
Epinephrine injection in patients with coronary artery disease may precipitate an episode of coronary insufficiency. This condition may be enhanced in patients receiving thyroid analogues. These phenomena should be kept in mind when catecholamine injections are required in sodium dextrothyroxine-treated patients with coronary artery disease.
Since the possibility of precipitating cardiac arrhythmias during surgery may be greater in patients treated with thyroid hormones, it may be wise to discontinue CHOLOXIN (sodium dextrothyroxine) in euthyroid patients at least two weeks prior to an elective operation. During emergency surgery in euthyroid patients and in surgery in hypothyroid patients in whom it may not be advisable or possible to withdraw therapy, the patients should be carefully observed.
There are reports that sodium dextrothyroxine in diabetic patients is capable of increasing blood sugar levels with a resultant increase in requirements of insulin or oral hypoglycemic agents. Special attention should be paid to parameters necessary for good control of the diabetic state in dextrothyroxine-treated subjects and to dosage requirements of insulin or other antidiabetic drugs. If sodium dextrothyroxine is later withdrawn from patients who required an increase of insulin (or oral hypoglycemic agents) dosage during its administration, the dosage of antidiabetic drugs should be reduced and adjusted to maintain good control of the diabetic state.

When either or both impaired liver or kidney function are present, the advantages of CHOLOXIN (sodium dextrothyroxine) therapy must be weighed against the possibility of deleterious results.
Usage in Women of Childbearing Age
Women of childbearing age with familial hypercholesterolemia or hyperlipemia should not be deprived of the use of this drug; it can be given to those patients exercising strict birth control procedures. Since pregnancy may occur despite the use of birth control procedures, administration of CHOLOXIN (sodium dextrothyroxine) to women of this age group should be undertaken only after weighing the possible risk to the fetus against the possible benefits to the mother. Teratogenic studies in two animal species have resulted in no abnormalities in the offspring.

Precautions
It is expected that patients on dextrothyroxine therapy will show greatly increased serum protein bound iodine levels. These increased serum PBI values are evidence of absorption and transport of the drug, and should NOT be interpreted as evidence of hypermetabolism. Similarly, they may not be used for titrating the effective dose of CHOLOXIN (sodium dextrothyroxine). PBI values in the range of 10 to 25 mcg% in treated patients are common.
It signs or symptoms of iodism develop during CHOLOXIN (sodium dextrothyroxine) therapy, the drug should be discontinued.
A few children with familial hypercholesterolemia have been treated with CHOLOXIN (sodium dextrothyroxine) for periods of one year or longer with no adverse effects on growth. However, it is recommended that the drug be continued in patients in this age group only if a significant serum cholesterol-lowering effect is observed.

Adverse Reactions
The side effects attributed to dextrothyroxine therapy are for the most part due to increased metabolism, and may be minimized by following the recommended dosage schedule. Adverse effects are least commonly seen in euthyroid patients with no signs or symptoms of organic heart disease. The incidence of adverse effects is increased in hypothyroid patients and is highest in those patients with organic heart disease superimposed on the hypothyroid state.
In the absence of known organic heart disease, some cardiac changes may be precipitated during sodium dextrothyroxine therapy. In addition to angina pectoris, arrhythmia consisting of extrasystoles, ectopic beats, or supraventricular tachycardia, ECG evidence of ischemic

myocardial changes and increase in heart size have been observed. Myocardial infarctions, both fatal and non fatal, have occurred, but these are not unexpected in untreated patients in the age groups studied. It is not known whether any of these infarcts were drug related.
Changes in clinical status that may be related to the metabolic action of the drug include the development of insomnia, nervousness, palpitations, tremors, loss of weight, lid lag, sweating, flushing, hyperthermia, hair loss, diuresis, and menstrual irregularities. Gastrointestinal complaints during therapy have included dyspepsia, nausea and vomiting, constipation, diarrhea, and decrease in appetite.
Other side effects reported to be associated with CHOLOXIN (sodium dextrothyroxine) therapy include the development of headache, changes in libido (increase or decrease), hoarseness, tinnitus, dizziness, peripheral edema, malaise, tiredness, visual disturbances, psychic changes, paresthesia, muscle pain, and various bizarre subjective complaints. Skin rashes, including a few which appeared to be due to iodism, and itching have been attributed to dextrothyroxine by some investigators. Gallstones have been discovered in occasional dextrothyroxine-treated patients and cholestatic jaundice has occurred in one patient although its relationship to CHOLOXIN (sodium dextrothyroxine) therapy was not established.

In several instances, the previously existing conditions of the patient appeared to continue or progress during the administration of CHOLOXIN (sodium dextrothyroxine), a worsening of peripheral vascular disease, sensorium, exophthalmos, and retinopathy have been reported.
CHOLOXIN (sodium dextrothyroxine) potentiates the effects of anticoagulants such as warfarin or Dicumarol on prothrombin time, thus indicating a decrease in the dosage requirements of the anticoagulants. On the other hand, dosage requirements of antidiabetic drugs have been reported to be increased during dextrothyroxine therapy (see WARNINGS section).

Dosage and Administration
For adult euthyroid hypercholesterolemic patients, the recommended maintenance dose of CHOLOXIN (sodium dextrothyroxine) is 4 to 8 mg per day. The initial daily dose should be 1 to 2 mg to be increased in 1 to 2 mg increments at intervals of not less than one month to a maximum level of 4 to 8 mg daily, if that dosage level is indicated to effect the desired lowering of serum cholesterol.
When used as partial or complete substitution therapy for levothyroxine in hypothyroid patients with cardiac disease who cannot tolerate other types of thyroid medication, the initial daily dose should be 1 mg to be increased in 1 mg increments at intervals of not less than one month to a maximum level of 4 to 8 mg daily, preferably the lower dosage. The maximum in patients receiving digitalis therapy is 4 mg.
For pediatric hypercholesterolemic patients, the recommended maintenance dose of CHOLOXIN (sodium dextrothyroxine) is approximately 0.1 mg (100 mcg) per kilogram. The initial daily dosage should be approximately 0.05 mg (50 mcg) per kilogram to be increased in up to 0.05 mg (50 mcg) per kilogram increments at monthly intervals. The recommended maximal dose is 4 mg daily, if that dosage is indicated to effect the desired lowering of serum cholesterol.
If new signs or symptoms of cardiac disease develop during the treatment period, the drug should be withdrawn.

How Supplied
CHOLOXIN (sodium dextrothyroxine) is supplied in prescription packages of scored 1, 2, 4, and 6 mg tablets.

March 1975



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the age of 6 would have until his 8th birthday to file suit and after the full age of 6 his rights would revert to the regular Statute.

Senate Bill 471—Establish medical malpractice review boards.

Senate Bill 472—Gives increased powers to the State Board of Registration for the Healing Arts.

Governor's Task Force Recommendations:

House Bill 1306—Roderick—Attempts to define informed consent to medical treatment.

House Bill 1307—Snowden—Provides for the elimination of the inclusion of dollar amounts in the demand in medical malpractice actions (ad damnum).

House Bill 1308—Meyer—Require reporting of medical malpractice claims to the Director of the Division of Insurance.

House Bill 1309—Meyer—Enabling legislation to establish JUA for professional liability insurance if needed.

House Bill 1312—Roderick—Would allow the admission of evidence of collateral sources of patient in medical malpractice actions.

On motion, seconded and passed, this portion of the report was approved.

Other Bills recommended for study and position later:

House Bill 1431—Raisch—Would establish a medical malpractice review panel.

House Bill 1433—Raisch—Believed to be the same as House Bill 1312 on collateral source rule.

House Bill 1447—Roderick—State of New Jersey sliding scale for attorneys contingent fee.

Bill to be opposed as recommended by Legislative Committee:

House Bill 1274—Stone—Change in Statute of Limitations from two years from the date of act to two years from discovery for filing of actions.

The motion was made, seconded and carried to approve this portion of the report.

The following death bills have been pre-filed:

House Bill 1082—Downing—Right-to-die legislation. Any individual could execute a document directing that no medical treatment designed solely to sustain the life processes should be utilized to prolong the individual's life at any time he is suffering from a terminal illness. Two physicians would have to certify that the person was suffering a terminal illness.

House Bill 1083—Downing—Definition of death for legal purposes. For all legal purposes, a human body with irreversible cessation of total brain functions according to usual and customary standards of medical practice shall be considered dead.

Senate Bill 670—Frappier—Provides means for determining when a person is dead and when death occurred.

House Bill 1406—Holt—Eliminates certain permits for removal of dead bodies.

House Bill 1407—Holt—Takes responsibility for filing of death certificates from a funeral director and places responsibility on a physician.

Concern was expressed that any definition of death might tie physicians to the establishment of criteria to determine when death occurs. These bills will be reviewed as they progress and positions taken later.

The motion was made, seconded and carried to approve this portion of the report.

Considerable discussion was held on the following three

bills that provide for the licensing of allied health personnel:

1. Radiologic Tech bill; 2. A bill calling for the licensing of CRNAs; and 3. House Bill 1054—Brockfeld—A bill that would allow for the certification and regulation of physicians' assistants.

Several of the Councilors indicated that they would like to see copies of these three bills.

The motion was made, seconded and carried that copies of these three bills be sent to the Officers and Councilors in order that their opinions on these bills might be obtained.

The Council agreed to support House Bill 1133 which calls for licensing of psychologists and they agreed to oppose House Bill 975 calling for the licensing and practice of acupuncture. They also agreed to oppose Senate Bill 622 which calls for the licensing of cardiology technologists.

Dr. Matthews stated that there is an unfiled bill drafted by the Attorney General that appears to eliminate dispensing of drugs by physicians. The Legislative Committee felt that this bill should be opposed.

The Legislative Committee also felt that House Bill 1033, which calls for the inclusion of Schedule V drugs under the same requirements of Schedules III and IV and House Bill 1408 calling for the generic prescribing and sales of drugs and pharmaceuticals should be studied further.

It was agreed that House Bill 1053, which would eliminate the state formulary under Medicare, should be supported.

Dr. Matthews mentioned House Bill 1165 which relates to controlled substances and House Bill 1455 relating to drugs and prescriptions. He indicated that he had not as yet seen a copy of these bills.

The motion was made, seconded and carried to approve this portion of the report.

Dr. Matthews indicated that the following bills would be looked at more closely before a position would be taken:

House Bill 976—Youngdahl—Provides where the term *physician*, etc., in health, medical or accident policies is used. The term shall also include within its meaning dentists for any care, services, etc. which dentists are licensed to perform.

House Bill 1191—Mueller (62nd)—Would provide for continuation of benefits for physically handicapped or mentally retarded children under life and accident policies and health service contracts.

House Bill 1366, which would provide for hospital treatment of alcoholism under all group policies and contracts, has been pre-filed.

The following bills relating to mental health also have been pre-filed:

House Bill 1023—Scott—Would require state to assume cost of care for indigent patients.

House Bill 1277—Stone—Patients' rights in institutions of Department of Mental Health.

House Bill 1325—Volkmer—Relates to mental health.

House Bill 1364—Schlef—Establishes a program for prevention and control of alcoholism.

House Bill 1365—Schlef—Would decriminalize public drunkenness as an offense.

The motion was made, seconded and carried to approve this portion of the report.

A bill has been drafted, but not pre-filed, that would accomplish the recommendations of the State Board of Health Ad Hoc Committee on Family Physicians for Rural Missouri. This would establish family practice residency training programs in outstate Missouri. It was felt that further study of this bill should be made.

House Bill 1100, which would provide for financial aid for medical students, has been pre-filed and will be studied.

The motion was made, seconded and carried to approve this portion of the report.

The Legislative Committee recommended that we oppose Senate Bill 667 which would extend the podiatry practice act to include the amputation of toes.

The motion was made, seconded and carried that MSMA oppose Senate Bill 667 and House Bill 1136, which would provide for the appointment of one lay person to all Missouri professional and occupational licensing boards.

No position was taken on Senate Bill 682, which is the certificate of need legislation.

Dr. Matthews indicated that the following pre-filed bills will be watched during the upcoming legislative session and positions will be taken on them later:

Senate Bill 505—Schechter—Would change the consent requirements for performance of autopsies. Changes age to 18.

Senate Bill 491—Schechter—Relates to crippled children's services. Changes eligible age to 18.

Senate Bill 554—Wiggins—Would include near needy under Medicaid. Fiscal note of \$22 million.

Senate Bill 556—Wiggins—Authorized tax levies in larger counties to provide for emergency medical services and emergency communications.

Senate Bill 562—Gannon—Amends ambulance district law.

Senate Bill 606—Conway—Would establish joint legislative health affairs committee.

Several bills to eliminate sale of fireworks in Missouri.

House Bill 1135—Kostron—Would establish statewide

the "911" emergency telephone number.

House Bill 1205—Treppler—Good Samaritan Bill.

House Bill 1245—Holt—Relates to radiation protection.

House Bill 1290—Riley—Establish in the Division of Health a program for hemophilia.

House Bill 1323—Volkmer—Relates to the practice of nursing.

House Bill 1009—Roderick—Would require fluoridation of water.

The motion was made, seconded and carried to approve the report as presented.

APPOINTMENT OF JOINT PRACTICE COMMITTEE

Dr. McAlhany appointed Dr. J. Russell Comer of Hannibal, to serve as Chairman of a committee of three from the MSMA to meet jointly with a similar committee of the Missouri Nurses Association as a joint practice committee to discuss mutual problems. Dr. Comer was requested to select the other two members of his committee.

NEXT COUNCIL MEETING

The Chairman stated the next Council Meeting will be held on Friday, January 30, and Saturday, January 31, 1976 at the Ramada Inn, Jefferson City. The Friday evening session will begin at 5 PM and the Saturday session will begin at 8 AM.

The regular Council meeting was adjourned and the Council went into a short Executive Session.

★

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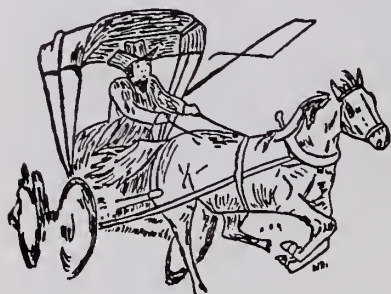
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Missouri Medicine in Review



FORTY YEARS AGO

Dr. Henry Schwarz, Professor Emeritus of Obstetrics and Gynecology in the Washington University Medical School in St. Louis died on Oct. 23, 1935 of chronic leukemia in Barnes Hospital. He was 79 years old.

Dr. Schwarz was one of the most widely known practitioners in his specialty. In 1886, he was appointed a lecturer in the St. Louis Medical College. When the St. Louis Medical College and the Missouri Medical College merged into the Washington University Medical School in 1899, Dr. Schwarz was placed at the head of the Department of Obstetrics and Gynecology.

At the young age of 34 years, he directed all of his time and energy toward making the department one of the best in the country. He achieved this ambition for today the Department of Obstetrics and Gynecology at Washington University is one of the finest in existence.

One of Dr. Schwarz's most noteworthy contributions was "Twilight Sleep." Soon after the method of painless childbirth was announced in Germany, Dr. Schwarz adopted it in his work and today it is used according to his technique in many of the hospitals throughout the land and, particularly, in St. Louis at the St. Louis Maternity Hospital, which was his pride.

TWENTY-FIVE YEARS AGO

Plans for the 93rd Annual Session of the Missouri State Medical Association to be held at the Municipal Auditorium in Kansas City on April 22-25 are nearing completion. Members of the General Committee on Arrangements are Drs. Victor

B. Buhler, Kansas City, Chairman; Robert W. Kennedy, Marshall and Donald M. Dowell, Chillicothe. Executive Committee members are Chairman Victor B. Buhler, Morris B. Simpson, Ira H. Lockwood, Dillard M. Eubank and Paul A. G. Johnson of Kansas City.

Student delegates from 48 medical schools throughout the United States with a total enrollment of 15,855 organized the Student American Medical Association at a meeting in Chicago on December 28-29. Warren R. Mullen of Jackson, Mich., a student at the University of Michigan Medical School in Ann Arbor, was elected president. Harry W. Sandberg of Moline, Ill., a student at the University of Illinois College of Medicine in Chicago, was elected vice-president. David Buchanan of Huron, S. D., a student at the University of South Dakota School of Medicine in Vermillion, was elected treasurer. Leo Brown of Harrisburg, Pa. is the executive secretary and will make his headquarters at the AMA in Chicago.

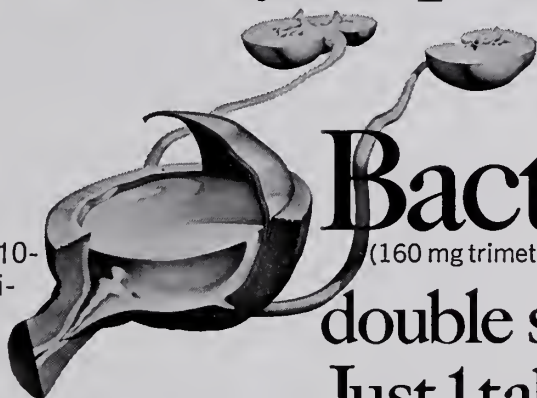
TEN YEARS AGO

The University of Missouri has been awarded a grant of \$27,950 by the National Institutes of Health in support of research into the effects of environmental factors on the intestinal function of absorption. The project is under the direction of Dr. X. J. Musacchia, Professor of Physiology, and is sponsored by the University's Space Science Center.

The annual meeting and installation of officers of the Buchanan County Medical Society was held at Hotel Robidoux on December 1. Eighty physicians and their ladies attended the dinner and meeting. Dr. Herbert C. Senn, retiring President, presided and served as installing officer. Officers installed were Dr. William Redmond, President; Dr. Irwin Rosenthal, President-Elect; Dr. Berwyn H. Moen, Vice-President; Dr. John L. Mothershead, Secretary; Dr. Robert W. Kieber, Treasurer; and Dr. Scott C. Benson, Censor.

Dr. Thomas H. Burford, Professor of Clinical Thoracic Surgery, Washington University, was elected president of the Society for Thoracic Surgeons at the annual meeting in January.

10-day Bactrim therapy outperforms 10-day ampicillin therapy.



In a multicenter, double-blind study of patients with chronic or frequently recurrent urinary tract infection, Bactrim 10-day therapy outperformed ampicillin 10-day therapy by 27.2%, when comparing patients who maintained clear cultures for eight weeks. Criterion for "clear culture" was 1000 or fewer organisms/ml of urine.

While adverse reactions were mild (e.g., nausea, rash), more serious reactions can occur with these drugs. See manufacturers' product information for complete listing.

Note: Bactrim single strength tablets were used in these clinical trials. However, studies have established the bioequivalency of Bactrim DS with the single strength tablets.

For chronic or frequently recurrent cystitis and pyelonephritis due to susceptible organisms.

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Chronic urinary tract infections evidenced by persistent bacteriuria (symptomatic or asymptomatic), frequently recurrent infections (relapse or reinfection), or infections associated with urinary tract complications, such as obstruction. Primarily for cystitis, pyelonephritis or pyelitis due to susceptible strains of *E. coli*, *Klebsiella-Enterobacter*, *Proteus mirabilis*, *Proteus vulgaris* and *Proteus morganii*.

NOTE: The increasing frequency of resistant organisms limits the usefulness of antibacterials, especially in these urinary tract infections. The recommended quantitative disc susceptibility method (*Federal Register*, 37:20527-20529, 1972) may be used to estimate bacterial susceptibility to Bactrim. A laboratory report of "Susceptible to trimethoprim-sulfamethoxazole" indicates an infection likely to respond to Bactrim therapy. If infection is confined to the urine, "Intermediate susceptibility" also indicates a likely response. "Resistant" indicates that response is unlikely.

Contraindications: Hypersensitivity to trimethoprim or sulfonamides; pregnancy; nursing mothers.

Warnings: Deaths from hypersensitivity reactions, agranulocytosis, aplastic anemia and other blood dyscrasias have been associated with sulfonamides. Experience with trimethoprim is much more limited but occasional interference with hematopoiesis has been reported as well as an increased incidence of thrombopenia with purpura in elderly patients on certain diuretics, primarily thiazides. Sore throat, fever, pallor, purpura or jaundice may be early signs of serious blood disorders. Frequent CBC's are recommended; therapy should be discontinued if a significantly reduced count of any formed blood element is noted. **Data are insufficient to recommend use in infants and children under 12.**

Precautions: Use cautiously in patients with impaired renal or hepatic function, possible folate deficiency, severe allergy or bronchial asthma. In patients with glucose-6-phosphate dehydrogenase deficiency, hemolysis, frequently dose-related, may occur. During therapy, maintain adequate fluid intake and perform frequent urinalyses, with careful microscopic examination, and renal function tests, particularly where there is impaired renal function.

Adverse Reactions: All major reactions to sulfonamides and trimethoprim are included, even if not reported with Bactrim. **Blood dyscrasias:** Agranulocytosis, aplastic anemia, megaloblastic anemia, thrombopenia, leukopenia, hemolytic anemia, purpura, hypoprolthrombinemia and methemoglobinemia. **Allergic reactions:** erythema multiforme, Stevens-Johnson syndrome, generalized skin eruptions,

Bactrim^{T.M.} DS

(160 mg trimethoprim and 800 mg sulfamethoxazole)

double strength tablets Just 1 tablet B.I.D.

Bactrim^{T.M.}

(80 mg trimethoprim and 400 mg sulfamethoxazole)

2 tablets B.I.D.

epidermal necrolysis, urticaria, serum sickness, pruritus, exfoliative dermatitis, anaphylactoid reactions, periorbital edema, conjunctival and scleral injection, photosensitization, arthralgia and allergic myocarditis. **Gastrointestinal reactions:** Glossitis, stomatitis, nausea, emesis, abdominal pains, hepatitis, diarrhea and pancreatitis. **CNS reactions:** Headache, peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo, insomnia, apathy, fatigue, muscle weakness and nervousness. **Miscellaneous reactions:** Drug fever, chills, toxic nephrosis with oliguria and anuria, periarteritis nodosa and L. E. phenomenon. Due to certain chemical similarities to some goitrogens, diuretics (acetazolamide, thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia in patients; cross-sensitivity with these agents may exist. In rats, long-term therapy with sulfonamides has produced thyroid malignancies.

Dosage: Not recommended for children under 12. Usual adult dosage: 1 DS tablet (double strength), 2 tablets (single strength) or 4 teasps. (20 ml) b.i.d. for 10-14 days.

For patients with renal impairment:

Creatinine Clearance (ml/min)	Recommended Dosage Regimen
Above 30	Usual standard regimen
15-30	1 DS tablet (double strength), 2 tablets (single strength) or 4 teasps. (20 ml) every 24 hours
Below 15	Use not recommended

Supplied: Double Strength (DS) tablets, each containing 160 mg trimethoprim and 800 mg sulfamethoxazole, bottles of 100; Tel-E-Dose® packages of 100. Tablets, each containing 80 mg trimethoprim and 400 mg sulfamethoxazole — bottles of 100 and 500; Tel-E-Dose® packages of 100; Prescription Paks of 40, available singly and in trays of 10.

Oral suspension, containing in each teaspoonful (5 ml) the equivalent of 40 mg trimethoprim and 200 mg sulfamethoxazole; fruit-flavored — bottles of 16 oz (1 pint).

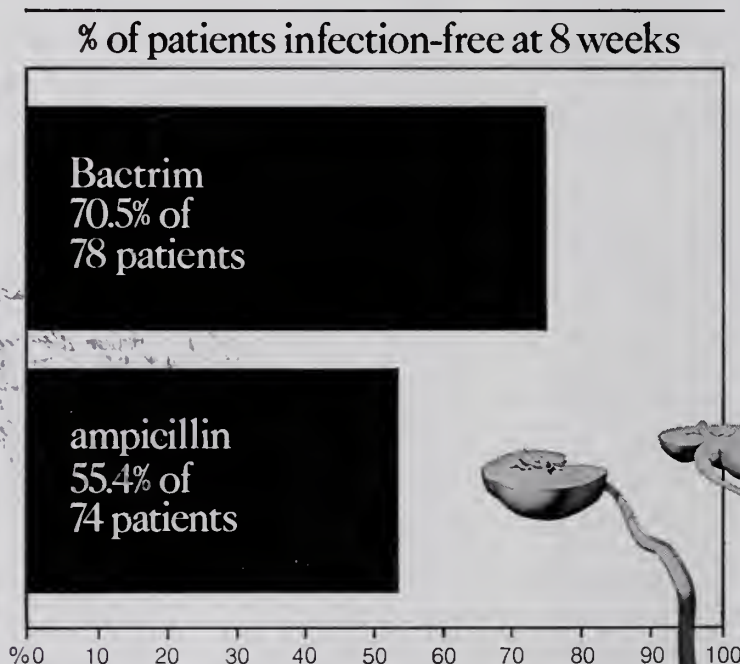


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In a multicenter study of patients with chronic or frequently recurrent urinary tract

Culture of Urinary Tract Infections
at the University of Pennsylvania
19 South 22nd St., Philadelphia, Pa. 19103

Bactrim^{T.M.} was 27.2%^{*} more effective than ampicillin keeping patients infection-free for 8 weeks



*This percentage is arrived at by the statistical method of dividing the difference between Bactrim and ampicillin results (15.1%) by the percent of ampicillin results (55.4%).

†Data on file, Hoffmann-La Roche Inc., Nutley, N.J. 07110

Bactrim^{T.M.} DS
(160 mg trimethoprim and 800 mg sulfamethoxazole)
double strength tablets
Just 1 tablet B.I.D.

Bactrim^{T.M.}
(80 mg trimethoprim and 400 mg sulfamethoxazole)
2 tablets B.I.D.

Please see summary of product information on preceding page.



Missouri Medicine

JOURNAL OF THE MISSOURI STATE MEDICAL ASSOCIATION



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118th MSMA Annual Session
April 1-4, 1976, Kansas City

Both often



Predominant
psychoneurotic
anxiety

Associated
depressive
symptoms

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Tension and anxiety states; somatic complaints which are concomitants of emotional factors; psychoneurotic states manifested by tension, anxiety, apprehension, fatigue, depressive symptoms or agitation; symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in skeletal muscle spasm due to reflex spasm to local pathology, spasticity caused by upper motor

neuron disorders, athetosis, stiff-man syndrome, convulsive disorders (not for sole therapy).

Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma; may be used in patients with open angle glaucoma who are receiving appropriate therapy.

Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive dis-

orders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms (similar to those with barbiturates and alcohol) have occurred following abrupt discontinuance (convulsions, tremor, abdominal and muscle cramps, vomiting and sweating). Use with caution in addiction-prone individuals under careful

Respond to one

According to her major
problems, she is a psychoneu-
rotic patient with severe
anxiety. But according to the
treatment she gives of her
condition, part of the problem
is like depression.
Because her problem,
though primarily one of ex-
cessive anxiety, is often accom-
panied by depressive symptom-
atology. Valium (diazepam)
provides relief for both—as
excessive anxiety is re-
lated to the depressive symp-
toms associated with it are also
relieved.

There are other advan-
tages in using Valium for the
treatment of psychoneu-
rotic anxiety with secondary
depressive symptoms: the
therapeutic effect of
Valium is pronounced and
lasting. This means that im-
provement is usually apparent

in the patient within a few
days rather than in a week or
two, although it may take
longer in some patients. In ad-
dition, Valium (diazepam) is
generally well tolerated; as
with most CNS-acting agents,
caution patients against haz-
ardous occupations requiring
complete mental alertness.

Also, because the psycho-
neurotic patient's symptoms
are often intensified at bed-
time, Valium can offer an addi-
tional benefit. An *h.s.* dose
added to the *b.i.d.* or *t.i.d.*
treatment regimen can relieve
the excessive anxiety and asso-
ciated depressive symptoms
and thus encourage a more
restful night's sleep.



Valium[®] (diazepam) ^{IV}

2-mg, 5-mg, 10-mg scored tablets

in psychoneurotic
anxiety states
with associated
depressive symptoms

ance because of their predisposi-
tion to habituation and dependence. In
pregnancy, lactation or women of child-
bearing age, weigh potential benefit
against possible hazard.

Precautions: If combined with other psy-
chotropic or anticonvulsants, consider
the pharmacology of agents em-
ployed such as phenothiazines,
barbiturates, MAO inhibitors
or antidepressants may potentiate
the action. Usual precautions indicated in
patients severely depressed, or with latent
suicidal tendencies.

Observe usual precautions in impaired
renal or hepatic function. Limit dosage to
smallest effective amount in elderly and
debilitated to preclude ataxia or over-
sedation.

Side Effects: Drowsiness, confusion, diplo-
pia, hypotension, changes in libido, nausea,
fatigue, depression, dysarthria, jaundice,
skin rash, ataxia, constipation, headache,
incontinence, changes in salivation,
slurred speech, tremor, vertigo, urinary
retention, blurred vision. Paradoxical re-
actions such as acute hyperexcited states,
anxiety, hallucinations, increased muscle

spasticity, insomnia, rage, sleep disturb-
ances, stimulation have been reported;
should these occur, discontinue drug. Iso-
lated reports of neutropenia, jaundice;
periodic blood counts and liver function
tests advisable during long-term therapy.



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Missouri Medicine

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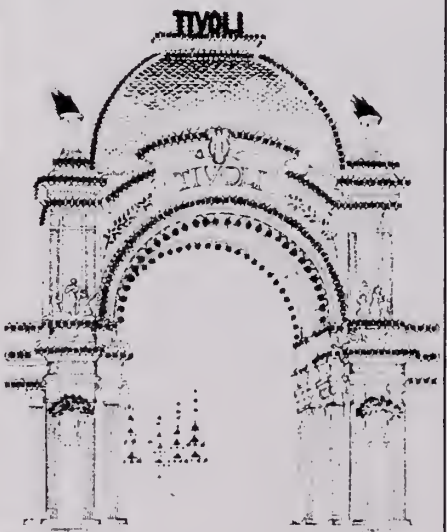
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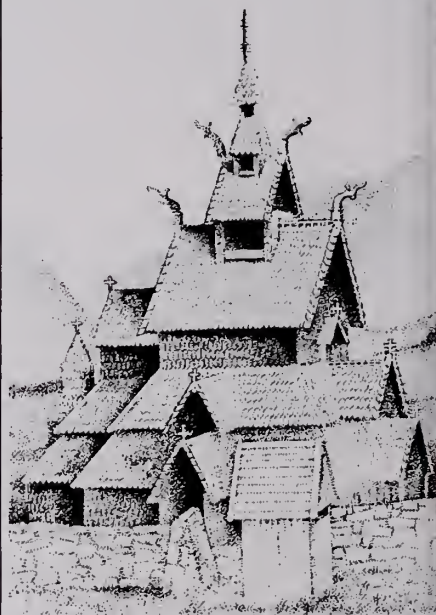


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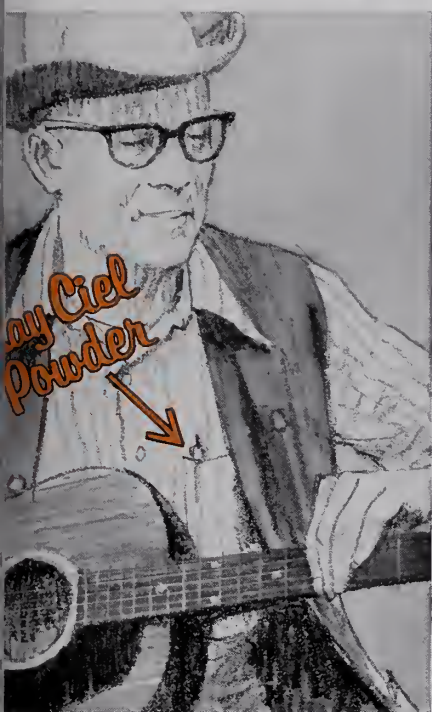
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Preliminary Program

MISSOURI STATE MEDICAL ASSOCIATION

118th Annual Session

Crown Center Hotel, Kansas City

April 1-4, 1976

Thursday, April 1

8:30 AM-3:30 PM *A Practice Management Workshop* designed for the established physician will be conducted by business specialists from the AMA. Registration is \$50. Please see article in the *News Roundup* section.

11:00 AM Registration of Delegates, Century Foyer.

1:30 PM *House of Delegates Meeting*, Opening Session. Century Room.

3:00 PM Reference Committee Meetings.

6:30 PM Missouri State Surgical Society Executive Council Meeting and Dinner. Senators Board Room.

Friday, April 2

8:00 AM Registration, Century Foyer.

8:00 AM Missouri University Alumni Board of Governors Breakfast Meeting. Ambassadors Board Room.

9:00 AM General Session—*Current Issues Confronting the Physician Across the Nation*. Century Room.

Introduction: R. Allen Chandler, M.D., Kansas City, MSMA President.

Speakers: Max H. Parrott, M.D., Portland, Ore., President, American Medical Association.

The Honorable Paul Rogers (Florida), Member, U. S. House of Representatives.

10:30 AM Intermission to View Exhibits.

10:30 AM Presiding: Stanley J. Goldman, M.D., Kansas City, President, Missouri State Allergy Association. Centennial Room "B."

Participants:

Histamine Modulation of Lymphocyte Function—Relation to Clinical Disease, Henry E. Jones, M.D., Ann Arbor, Mich., Assistant Professor of Dermatology, University of Michigan Medical Center.

Pentapeptide Inhibition of Skin Test Reaction in Clinical Allergy, Robert Dockhorn, M.D., Kansas City.

Skin Manifestations of Food Hypersensitivity, James W. Willoughby, M.D., Kansas City.

Aeroallergens, William R. Solomon, M.D., Ann Arbor, Mich., Section of Allergy, Department of Internal Medicine, University of Michigan Medical Center.

Sponsored by the Missouri State Allergy Association.

*11:00 AM *Missouri Cancer Program, Inc.* Westport Room.

Speaker: John Yarbro, M.D., Director of Missouri Cancer Program, Inc., Columbia. *How Best to Use Your Tumor Registry*.

Speaker: Frederick Holmes, M.D., Assistant Professor, Kansas University Medical Center, Kansas City, Kan.

Moderator: George Cowan, M.D., Kansas City.

Sponsored by the American Cancer Society, Missouri Division, Inc.

*11:00 AM *Recent Developments in Drug Usage*. Mission Room.

Moderator: Jack Barrow, M.D., St. Louis.

Speaker: Daniel L. Azarnoff, M.D., Professor of Medicine and Pharmacology, University of Kansas Medical Center, College of Health Sciences and Hospital, Kansas City, Kan.

Sponsored by Missouri Society of Internal Medicine and the American College of Physicians (Missouri Region).

*11:00 AM *Adolescent Medicine*. Penn Valley Room.

Moderator: Robert C. Fairchild, M.D., Kansas City.

Participants:

Adolescent-Parent Interactions, Clark W. Seely, M.D., Kansas City.

The Deviant Adolescent, Sidney F. Pakula, M.D., Kansas City.

Panel on Adolescent Gynecology, Katherine W. Smith, M.D., and Gerald L. Miller, M.D., Kansas City.

Sponsored by the Missouri Chapter, American Academy of Pediatrics.

*11:00 AM *Cerebral Vascular Insufficiency*. Shawnee Room.

Moderator: Donald Silver, M.D., Columbia.

* Concurrent Sessions.

Participants:

Extracranial Manifestation and Management, Donald Silver, M.D., Professor and Chairman of Surgery, University of Missouri-Columbia School of Medicine.

Intracranial Manifestation and Management, Clark Watts, M.D., Professor of Neurosurgery, University of Missouri-Columbia School of Medicine.

Sponsored by the Missouri State Surgical Society.

- *11:00 AM *Brasher Memorial Lecture—Occupational Lung Diseases*. Roanoke Room.

Moderator: Florence E. MacInnis, M.D., Kansas City.

Speaker: W. Keith C. Morgan, M.D., Professor of Medicine, West Virginia School of Medicine, Morgantown, W.Va.

Sponsored by the American Lung Association of Missouri and the Missouri Thoracic Society.

- 12:30 PM Missouri University Medical Alumni Luncheon. Century Room.

- 12:30 PM Missouri State Allergy Association Luncheon, Annual Business Meeting and Election of Officers (Members only). Liberty Room.

- 12:30 PM Missouri Thoracic Society Luncheon and Business Meeting. Presidents Room.

- * 2:00 PM Presiding: Robert E. Bolinske, M.D., St. Louis, President-Elect, Missouri State Allergy Association. Centennial Room "B."

Participants:

Immunity in the Atopic Patient—Protection Against Infection, Fungi and Bacteria, Henry E. Jones, M.D., Ann Arbor, Mich.

Sympathomimetics, 1976, Phillip E. Korenblat, M.D., St. Louis.

Allergic Modification of Nasal Physiology, William R. Solomon, M.D., Ann Arbor, Mich.

Acute Anaphylactic Shock Simulating an Acute Myocardial Infarction, Harry C. Wall, M.D., Kansas City.

Malignant Melanoma Immunologically Treated with Dinitrochlorobenzene, Leonard D. Grayson, M.D., Quincy, Ill.

Sponsored by the Missouri State Allergy Association.

- * 2:00 PM *Endoscopy and Other New Diagnostic Techniques for Upper and Lower GI Tract*. Mission Room.

Moderator: William D. Hoadley, M.D., Kansas City.

Participants:

Use of the Flexible Colonoscope in Study and Treatment of Lesions of the Colon, Burnell "Tony" Landers, M.D., Assistant Clinical Professor of Medicine, University of Missouri-Kansas City School of Medicine.

Investigation and Diagnosis of Upper Gastrointestinal Tract by Fibre-Optic Endoscopy, Michael S. Fedotin, M.D., Assistant Professor of Medicine, University of Kansas School of Medicine, Kansas City, Kan.

Sponsored by the Missouri Society of Internal Medicine and the American College of Physicians (Missouri Region).

- * 2:00 PM *The Natural History of Breast Carcinoma: Relevance to Recent Trends in Diagnosis and Treatment*. Roanoke Room.

Moderator: C. T. Dolan, M.D., N. Kansas City.

Speaker: Walter C. Bauer, M.D., Professor of Surgical Pathology and Pathology, Washington University, St. Louis.

Sponsored by the Missouri Society of Pathologists.

- * 2:00 PM *Drug Treatment in the Psychogeriatric Patient*. Westport Room.

Speaker: Carl Eisdorfer, M.D., Ph.D., Professor of Psychiatry, University of Washington, Seattle, Wash. (Sponsored by Pfizer.)

Moderator: James Young, M.D., Kansas City.

Sponsored by the Missouri Psychiatric Association.

- * 2:00 PM *Symposium on Sports Medicine*. Shawnee Room.

Moderator: George A. Hill, III, M.D., St. Louis.

Panel Participants:

Safe Progressive Exercise for the Non-athlete, John Cooksey, M.D., Assistant Professor of Medicine and Preventive Medicine, Washington University School of Medicine, St. Louis.

Cardio-Pulmonary Effects of Competitive Sports, Richard Martin, M.D., Professor of Medicine and Director of Cardiology, University of Missouri-Columbia, School of Medicine.

Physiologic Casualties at High Altitude, Ben Eisenman, M.D., Professor of Medicine, University of Colorado School of Medicine, Denver, Colo.

Cranial-Cervical Injuries in Athletes, Frederick E. Jackson, M.D., Neurological Surgery, Fall Brook, Calif.

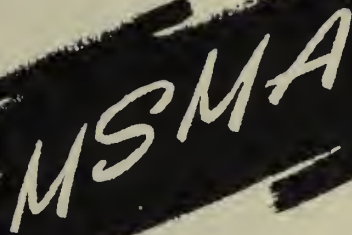
Prevention and Management of Knee Injuries in Athletes, Howard J. Ellfeldt, M.D., Orthopedic Surgery, Orthopedic Surgeon for the Kansas City Chiefs, Research Hospital and Medical Center, Kansas City.

Sponsored by the Missouri State Surgical Society.

- 3:30 PM Intermission to View Exhibits.
 3:30 PM Missouri State Medical Foundation Board of Directors Annual Meeting. Century Room.
 4:00 PM *House of Delegates*, Second Session. Century Room.
 5:30 PM Missouri State Allergy Association Cocktail Party for members and guests. Independence Room.
 6:00 PM Reference Committee Meetings.
 6:30 PM Missouri Society of Pathologists Dinner. Presidents Room.
 6:30 PM Missouri Psychiatric Association Cocktails (Penn Valley Room) and Dinner (Roanoke Room).
 6:30 PM Missouri State Surgical Society Cocktails (Shawnee Room) and Dinner (Mission Room).

Saturday, April 3

- 8:00 AM Registration, Century Foyer.
 ° 9:00 AM *Fundamentals of Acid-Base Therapy and Practice*. Westport Room.
 Moderator: Donald E. McIntosh, M.D., Kansas City.
 Speaker: Walter C. Bernards, M.D., Staff Anesthesiologist, St. Vincent's Hospital, Portland, Ore.
 Sponsored by the Missouri Society of Anesthesiologists.
 ° 9:00 AM *Hypertension 1976*. Roanoke Room.
 Moderator: Jack S. Sanders, M.D., Jefferson City.
 Speakers: Walter M. Kirkendall, M.D., Houston, Tex. (Sponsored by Ciba Pharmaceutical Co.)
 Mitchell Perry, M.D., St. Louis.
 David Goldring, M.D., St. Louis.
 Sponsored by the Missouri Heart Association, Inc.
 ° 9:00 AM *New Concepts in Pregnancy Care*. Mission Room.
 Moderator: H. Kermit Knoch, M.D., Kansas City.
 Participants:
 Jack M. Schneider, M.D., Chairman, Department of OB-GYN, Texas Technical Medical School, Lubbock, Tex.
 Albert B. Gerbie, M.D., Professor, Obstetrics & Gynecology, Northwestern University, Chicago, Ill.
 Sponsored by the American College of Obstetricians and Gynecologists.
 ° 9:00 AM *Hypotropia in Children and New Surgical Techniques in Strabismus*. Centennial Room "B."
 Speaker: William E. Scott, M.D., Associate Professor of Ophthalmology and Director of Pediatric Ophthalmology, University Hospital, Iowa City, Ia.
 Moderator: Robert K. Weir, M.D., Kansas City.
 Sponsored by the Missouri Ophthalmological Society.
 ° 9:00 AM *Controversial Surgical Problems*. Shawnee Room.
 Moderator: Paul G. Koontz, Jr., M.D., Kansas City.
 Participants: Surgical Staff of St. Luke's Hospital, Kansas City.
 Sponsored by the Missouri State Surgical Society.
 ° 9:00 AM *Discuss the Issues with Your AMA Delegates*. Presidents Room.
 (Missouri's AMA Delegates and Alternates will be available for an open forum type discussion.)
 10:30 AM Intermission to View Exhibits.
 ° 11:00 AM *Potpourri of Anesthesia Pearls*. Westport Room.
 Moderator: George P. Hoech, Jr., M.D., Kansas City.
 Speaker: Archibald O. Tetzlaff, M.D., Staff Anesthesiologist, Providence-St. Margaret's Health Center, Kansas City, Kan.
 Sponsored by the Missouri Society of Anesthesiologists.
 ° 11:00 AM *Modern Treatment of Fungal Infections*. Penn Valley Room.
 Moderator: Larry E. Millikan, M.D., Columbia.
 Speaker: Henry E. Jones, M.D., Assistant Professor of Dermatology, University of Michigan Medical Center, Ann Arbor, Mich.
 Sponsored by the Missouri Dermatological Society.
 ° 11:00 AM *Current Status of High Risk Maternal and Infant Care in Missouri*. Mission Room.
 Moderator: Harry Jonas, M.D., Kansas City.
 Panel Participants:
 Elizabeth James, M.D., Columbia.
 Ned Smull, M.D., Kansas City.
 Albert B. Gerbie, M.D., Chicago, Ill.
 Jack M. Schneider, M.D., Lubbock, Tex.
 Sponsored by the American College of Obstetricians and Gynecologists.

MSMA

NEWS ROUND - UP

March 1976

Malpractice crisis tops Annual Session agenda

The malpractice insurance crisis is expected to be the dominate topic at the 118th Annual Session of the Missouri State Medical Association, April 1-4, 1976, at the Crown Center Hotel in Kansas City.

A Reference Committee will hear the several resolutions submitted which deal with the malpractice situation, the Legislative Committee's report on current malpractice legislation and the report of the Ad Hoc Committee to Study the Feasibility of Mutual Assessment Company. The Reference Committee hearing should offer MSMA members the opportunity to air their views on this subject.

Malpractice, however, will not be the only subject of importance to Missouri physicians and their patients to be considered at the Annual Session. More than 40 resolutions have been submitted for action by the

MSMA House of Delegates.

These resolutions deal with such topics as changing the Annual Session to a Fall meeting, expressing opposition to the F.T.C.'s proposal on physician advertising, defining "death", protesting reimbursement policies of Medicaid, Medicare and CHAMPUS, and several dealing with opposition or support of national and state legislation.

The House of Delegates will take up these subjects and several others at its first meeting, at 1:30 p.m., Thursday, April 1. The Reference Committees will hold open meetings beginning at 3 p.m., Thursday. The House will hold its second session at 4 p.m., Friday, April 2, and its final session at 7:30 a.m., Sunday, April 4.

(Continued on Next Page)

SCHEDULE OF EVENTS

Thursday, April 1

- 8:00 a.m. - A Practice Management
- 3:30 p.m. Workshop,
Top of the Crown
- 11:00 a.m. Registration of Delegates,
Century Foyer
- 1:30 p.m. House of Delegates Meeting,
Opening Session, *Century Room*
- 3:00 p.m. Reference Committee Meetings:
Constitution and Bylaws, *Mission Room*
Medical Education & Public
Welfare, *Westport Room*
Necrology, *Century Room*
- 3:30 p.m. Reference Committee Meetings:
Reports of Officers, *Penn Valley Room*
Miscellaneous Affairs, *Roanoke Room*
- 4:00 p.m. Reference Committee Meeting:
Resolutions, *Shawnee Room*

Friday, April 2

- 8:00 a.m. Registration, *Century Foyer*
- 9:00 a.m. General Session—Current Issues
Confronting the Physicians

Across the Nation, *Century Room*
Introduction:

R. Allen Chandler, M.D.,
Kansas City, MSMA President

Speakers:

Max H. Parrott, M.D., AMA
President

The Honorable Paul G. Rogers,
Member, U. S. House of
Representatives

10:30 a.m.

3:30 p.m. Scientific Sessions

4:00 p.m. House of Delegates, Second
Session, *Century Room*

Saturday, April 3

- 9:00 a.m. Discuss the Issues with Your
AMA Delegates, *Presidents Room*
- 9:00 a.m.
- 3:30 p.m. Scientific Sessions
- 6:30 p.m. Social Hour for Those Attending
Banquet, *Century Room*
- 7:15 p.m. Annual Banquet in Honor of
Past-Presidents, *Century Room*

Sunday, April 4

- 7:30 a.m. House of Delegates Breakfast and
Final Session, *Century Room*

Crisis tops agenda

Continued



*Rep. Paul G. Rogers
Democrat-Florida*

Max S. Parrott, M.D., President of the AMA, will be featured on the Opening General Session program along with U.S. Rep. Paul G. Rogers (D-Fla.), Chairman of the Subcommittee on Health and Environment of the House Interstate and Foreign Commerce Committee at 9 a.m., Friday, April 2. The two will speak on "Current Issues Confronting Physicians".

The scientific program promises to be one of the best at an MSMA meeting. Twenty-four scientific programs sponsored by 14 medical specialty groups and two voluntary health agencies will be available. The program has been approved for 10 hours of Category 1 Continuing Medical Education credit by the MSMA and is acceptable for 9 1/2 Elective hours by the American Academy of Family Physicians. Preliminary Programs detailing the scientific sessions have been mailed to MSMA members.

Again this year, the Session has attracted a full slate of 32 Technical Exhibitors. Along with having the opportunity to view and discuss new drugs and equipment with industry representatives, MSMA members can register for a daily drawing. Each day, a quality pair of binoculars and a pocket calculator will be awarded the winners.

R. Allen Chandler, M.D., of Kansas City, President of the MSMA, and Max S. Franklin, M.D., of St. Louis, President-Elect, will be honored at the Annual Past Presidents' Banquet Saturday evening. Following a short formal program, entertainment will be provided by the "Sweet Adelines" of St. Joseph, a women's barbershop harmony group which recently placed second in international competition.

Again this year, tickets to the Past Presidents' Banquet, the 50-Year Club Luncheon and the Breakfast Meeting of the House of Delegates will be available at the MSMA Registration Desk.

A new feature at this year's Session will be a one-day Practice Management Workshop on Thursday, April 1. The workshop is designed to improve the established physicians business practices. There is a \$50 registration fee for the workshop, which is conducted by the Practice Management Division of the AMA.

Also, in an effort to gain more input from MSMA members, the Association's Delegates to the AMA will hold an open forum meeting at 9 a.m., Saturday, April 3.

The Auxiliary to the MSMA has issued an invitation to physician's wives who are not Auxiliary members to participate in several activities planned during the meeting. Non-members can obtain further information at the Auxiliary registration desk in the hotel.

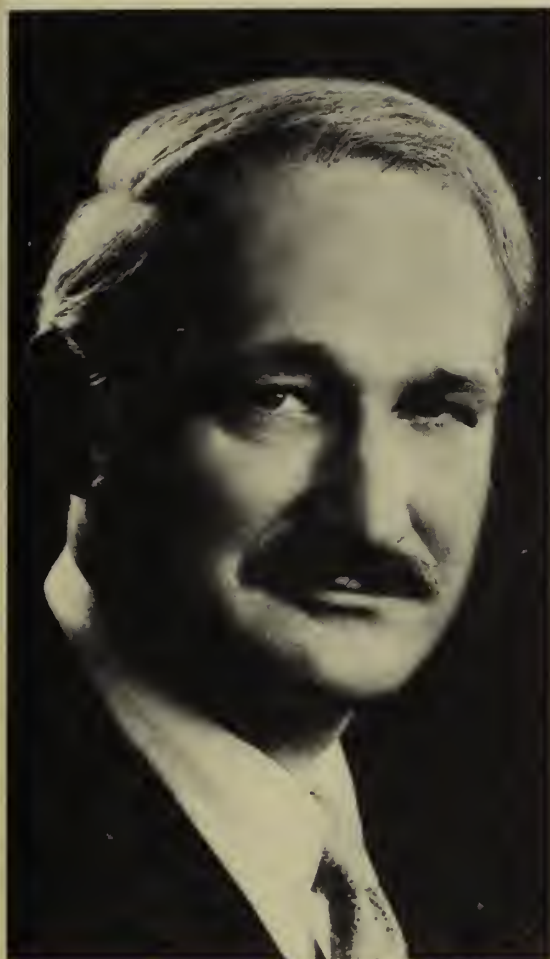
MSMA House to consider 42 resolutions

In what promises to be one of the busiest Annual Sessions on record for the Missouri State Medical Association, 42 resolutions have already been submitted for decisions by the House of Delegates.

These resolutions, along with reports of the MSMA Council, Committees and Commissions will be referred to Reference Committees for debate. All MSMA members are welcome to testify before these committees. An agenda for each Reference Committee will be available at the Opening Session of the House of Delegates.

The resolutions introduced are:

- No. 1 - MSMA District Vice Councilor
- No. 2 - Definition of Death
- No. 3 - Doctor-Patient Confidentiality
- No. 4 - Informed Consent
- No. 5 - Role of Commission on Interspecialty Medicine
- No. 6 - Involvement of Medical Students
- No. 7 - Student Delegates on Reference Committees
- No. 8 - Seating for Student Delegates
- No. 9 - Malpractice Countersuits
- No. 10 - Bi-Annual Meeting of the House
- No. 11 - Malpractice Clearinghouse
- No. 12 - FMG Representation on Board of Healing Arts
- No. 13 - Sudden Infant Death Syndrome
- No. 14 - Insurance Coverage for Mental Illness
- No. 15 - Require Director of Department of Mental Health be a Physician
- No. 16 - Commendation to Sen. William Cason
- No. 17 - Commendation to Sen. Albert Spradling
- No. 18 - Negotiations with Third Parties
- No. 19 - Oppose Public Law 93-641
- No. 20 - Malpractice—Remove from Tort System
- No. 21 - Physicians' Assistants
- No. 22 - Amendments to PSRO Law
- No. 23 - Defense of Rights
- No. 24 - Reimbursement for Utilization Review
- No. 25 - Unilateral Action by CHAMPUS
- No. 26 - Medicare Reimbursement
- No. 27 - Medicaid Reimbursement
- No. 28 - Oppose Generic Prescribing Law
- No. 29 - Repeal of Public Law 93-641
- No. 30 - Oppose National Health Insurance
- No. 31 - Health Manpower Legislation
- No. 32 - Separate Department of Health
- No. 33 - AMA Collective Bargaining
- No. 34 - Joint Commission on Accreditation of Hospitals
- No. 35 - Quackery
- No. 36 - Resist Physician Advertising
- No. 37 - Support Board of Healing Arts
- No. 38 - FDA Efficacy Testing of Drugs
- No. 39 - Change Annual Session to Fall Meeting
- No. 40 - Uniform Hospital Discharge Data Abstract
- No. 41 - Action Plan on Malpractice Legislation
- No. 42 - Malpractice—Legislative Changes



R. Allen Chandler, M.D.
President



Max S. Franklin, M.D.
President-Elect

Dr. Franklin to become MSMA President

Leadership of the Missouri State Medical Association will shift from the West side of the state to the East side on Saturday night, April 3, 1976, during ceremonies of the Past Presidents Banquet at the 118th Annual Session at the Crown Center Hotel in Kansas City.

President R. Allen Chandler, M.D., a Kansas City plastic surgeon, will present the gavel to President-Elect Max S. Franklin, M.D., of St. Louis.

Other highlights of the Banquet will include recognition of Past Presidents of the MSMA and 50-Year Members. Also, the "Sweet Adelines," a barbershop harmony organization for women, will provide entertainment. The "Sweet Adelines," from St. Joseph, recently placed second in international competition and promise to offer a delightful evening.

President-Elect Franklin has served as Treasurer of the MSMA and is the Immediate Past Chairman of the MSMA Council. He is also a member of the Board of Trustees of the Missouri State Medical Foundation.

Dr. Franklin is a graduate of Harvard University and received his M.D. degree at St. Louis University School of Medicine. A specialist in internal medicine and cardiology, he is Assistant Clinical Professor of Internal Medicine at St. Louis University.

Dr. Franklin served as Flight Surgeon in the Army Air Force from 1942-1946. He is a member of the Southern Medical Association, a National Past President of Phi Delta Epsilon Medical Fraternity and has served as President of the Board of Trustees of Phi Delta Epsilon.

Attend the 118th Annual Session!!!

Disappointing 41% return surveys on malpractice

A disappointing 41% of MSMA members have returned the survey mailed in late December regarding the possible formation of a mutual assessment malpractice insurance company.

To date, only 2,000 of the more than 4,800-plus MSMA members have returned the questionnaire with the requested information. The survey is designed to determine the past and current malpractice situation in Missouri.

Since there is no comprehensive information available in the state on the malpractice situation, the law firm which initiated the investigation into formation of a mutual company instructed the MSMA to develop meaningful data before proceeding.

The problem of lack of member response is compounded by the fact that the law firm originally stated that to form such a company would require participation by at least 50% of all MSMA members and a capitalization of \$4 to \$5 million. At this point, fewer survey responses have been received than it would take to form a mutual.

The Ad Hoc Committee to Study Mutual Assessment Company has been instructed to report on its findings at the upcoming Annual Session, April 1-4 in Kansas City. However, in order to present a thorough report, the Committee needs a greater percentage of survey returns.

Therefore, the Committee will soon send another questionnaire to those MSMA members who failed to respond to the first mailing. All members are urged to complete and return the survey at their earliest convenience so that comprehensive statistics can be developed for report to the House of Delegates.

Negotiating seminars planned for physicians

A two-day seminar on "The Art of Negotiating for the Medical Profession," sponsored by the AMA, will be conducted for physicians on June 5-6 in Rosemont, Ill.

The seminar is a cram course in the techniques, strategies, goals and tactics which comprise the art of negotiations. It will be conducted by recognized experts from Negotiation Institute, Inc.

Medical care is no longer a private matter between physicians and their patients. Physicians are compelled to relate to federal, state and municipal government agencies, to hospital governing boards and administrators, to insurance carriers, to peers and to consumers.

Negotiations, a skill that can be learned, can bring meaningful solutions in many of these problem areas. In fact, it is a skill which physicians' adversaries already use.

The seminar is open to all physicians. Registration is \$100 for AMA members and \$150 for non-members. For further information, contact: Department of Negotiations, AMA, 535 North Dearborn Street, Chicago, Illinois 60610.

Viking Adventure set

The Viking Adventure, a two-week tour of Scandinavia, is being offered to MSMA members under the sponsorship of MSML, Inc.

The non-regimented tour includes four days in Oslo Norway, four days in Stockholm, Sweden, and four days in Copenhagen, Denmark.

The tour price of \$1,298 includes direct chartered jet flights, deluxe hotels, dinners at a selection of the finest restaurants plus the freedom to set your own pace.

Flights will depart Kansas City and St. Louis June 28 and return July 11. Further details are available by contacting MSMA Headquarters.

PAC Workshop slated

Will your candidates win in the '76 Elections?

The voters will decide, but physicians are in a position to help them make their choice.

The 1976 AMA-AMPAC Workshop, set for April 10-12, in Washington, will instruct physicians on how to further develop the skills they need for effective political action.

Program leaders will include renowned political consultants Paul Newman and Matthew Reese, Pulitzer prize winner David Broder and political author Ben Wattenberg.

One of the highlights of the Workshop is that it provides Missouri physicians the opportunity to meet personally with their elected representatives in Congress. Along with visiting the lawmakers in their offices, a Missouri Congressional luncheon is scheduled for Tuesday, April 13.

Registration for the Workshop is \$75. Members interested in attending should contact MSMA Headquarters as soon as possible.

Temporary licensee limited

A temporary licensee may write prescriptions for legend drugs, but not for controlled substances, according to an opinion issued by the Missouri Board of Registration for the Healing Arts.

A temporary license is issued for a person in an approved training program working under the supervision of a licensed physician. Under the law, no fees for services should be charged by the temporary licensee or by the hospital, stated the Board.

The Board further explained that temporary licensees cannot prescribe controlled substances because it is believed that the law under which the Missouri Bureau of Narcotics and Dangerous Drugs operates requires that a physician be fully licensed before having controlled substances authority.

New Greene County Exec.

John E. Thompson Jr. will assume duties as executive director of the Greene County Medical Society on March 1, according to Dr. David Hall, society president.

Thompson, who succeeds Gary Schnedler, has been a member of the Springfield Newspapers, Inc., news staff and has an extensive background in management and public relations.

- ° 11:00 AM *Dolorology: Comprehensive Management of Pain (Pain Game)*. Roanoke Room.
Norman Shealy, M.D., Director of Pain Rehabilitation Center, La Crosse, Wisc.
Long-Term Follow-up of Patients with Stroke
Franz U. Steinberg, M.D., Director, Department of Rehabilitation Medicine,
Jewish Hospital, St. Louis.
Rehabilitation of the Patient with Stroke
Agnes Moon, M.D., Assistant Professor, University of Missouri-Columbia,
Medical Center, Rusk Rehabilitation Center.
Moderator: Charles Peterson, M.D., Columbia.
Sponsored by Physical Medicine and Rehabilitation.
- ° 11:00 AM *Surgery for Incontinence*. Shawnee Room.
Speaker: Joseph E. Montie, M.D., Assistant Professor of Urology, University of
Missouri-Columbia.
The Adrenogenital Syndrome
Speaker: Gilbert Ross, Jr., M.D., Professor of Urology, University of Missouri-
Columbia.
Moderator: Lin Puckett, M.D., Columbia.
Sponsored by the Missouri State Surgical Society.
- 12:15 PM Missouri Ophthalmological Society, Inc. Luncheon. Centennial Room "B."
- 12:30 PM Missouri OB-GYN Society and the American College of Obstetricians and Gynecologists Luncheon. Century Room. (This will include the State Maternal Mortality Committee Report and a business meeting of the Missouri OB-GYN Society.)
- 12:30 PM Fifty-Year Club Luncheon. Presidents Room.
- 12:30 PM Physical Medicine and Rehabilitation Luncheon. Ambassadors Board Room.
- 12:30 PM Missouri Society of Neurosurgeons Luncheon. Executives Board Room.
- 1:30 PM *Newer Imaging Systems*. Westport Room.
Moderator: Jack L. Stuber, M.D., Kansas City.
Participants:
Initial Experience with Total Body CAT Scanning in a Private Practice, Rodger Lambie, M.D., Menorah Medical Center, Kansas City.
Gray Scale Ultrasound of the Abdomen and Pelvis, William J. Walls, M.D., Assistant Professor, Diagnostic Radiology, University of Kansas Medical Center, Lawrence, Kan.
Xeroradiography, Kenneth C. Hollweg, M.D., Kansas City.
Sponsored by the Missouri Radiological Society.
- ° 2:00 PM *Clinical Problems in Photosensitivity*. Penn Valley Room.
Moderator: Gordon Sauer, M.D., Kansas City.
Speaker: John Epstein, M.D., Editor, *AMA Archives of Dermatology*; Clinical Professor of Dermatology, University of California, San Francisco, Calif.
Panel Discussion—Common Skin Problems.
Panel Participants:
Gene Bauer, M.D., St. Louis.
Ernest Lorenc, M.D., Springfield.
Dallas Johnson, M.D., Kansas City.
Gordon Sauer, M.D., Kansas City.
Sponsored by the Missouri Dermatological Society.
- ° 2:00 PM *Symposium—Head and Neck Cancer: Emerging Concepts in Total Care*. Shawnee Room.
Moderator. Michael F. Hughes, M.D., Kansas City.
Participants:
Charley W. Norris, M.D., Assistant Professor of Otolaryngology, University of Kansas Medical School, Kansas City, Kan.
George Cowan, M.D., Chairman, Department of Radiotherapy, Menorah Hospital, Kansas City.
John P. Murray, M.D., Assistant Professor of Otolaryngology, Washington University School of Medicine, St. Louis.
William E. Davis, M.D., Assistant Professor of Otolaryngology, University of Missouri-Columbia.
Sponsored by the Missouri Ear, Nose and Throat Association, Inc.
- ° 2:00 PM *Ask the Expert*. Mission Room.
Moderator: James E. Bickley, M.D., Kansas City.
Panel Participants:
Jack M. Schneider, M.D., Lubbock, Tex.
Albert B. Gerbie, M.D., Chicago, Ill.
William T. Griffin, M.D., Columbia.
Elizabeth James, M.D., Columbia.
Sponsored by the American College of Obstetricians and Gynecologists.

3:30 PM Intermission to View Exhibits.
 5:00 PM Missouri University Medical Alumni Cocktail Party. Mission Room.
 5:00 PM St. Louis University Medical Alumni Cocktail Party. Shawnee Room.
 5:00 PM Washington University Medical Alumni Cocktail Party. Roanoke Room.
 6:30 PM Social Hour for those attending Banquet. Century Room.
 7:15 PM Annual Banquet in Honor of Past-Presidents. Century Room.

Sunday, April 4

7:30 AM House of Delegates, Breakfast and Final Session. Century Room.

OFFICIAL DELEGATES

118th MSMA Annual Session

<i>County</i>	<i>Delegates</i>	<i>Alternates</i>
Andrew	J. L. Villahermosa, Savannah . . .	W. C. Baker, Savannah
Audrain	Benjamin N. Jolly, Mexico	Glen P. Kallenbach, Mexico
Barton	Thomas W. Carroll, Lamar	Alvin R. Cain, Lamar
Boone	Hugh E. Stephenson, Jr.	Thomas W. Burns, Columbia
"	John T. Logue, Columbia	
"	Benedict A. Moranville	Larry E. Millikan, Columbia
"	Kenneth K. Keown, Columbia . . .	John S. Spratt, Jr., Columbia
"	William B. See, Columbia	George J. Fuchs, Jr., Columbia
"	Kenneth L. Rall, Columbia	Leroy J. Miller, Columbia
"	William C. Allen, Columbia	A. Sherwood Baker, Columbia
Buchanan	Allen I. Herman, St. Joseph . . .	R. Philip Acuff, St. Joseph
"	Charles N. Mullican	Gerald E. Fox, St. Joseph
"	St. Joseph	
"	Donald J. Stallard, St. Joseph . . .	Berwyn H. Moen, St. Joseph
"	Ernest E. Wadlow, St. Joseph . .	Gordon S. Paulson, St. Joseph
Butler-Wayne		
Ripley-Carter	T. E. Ruff, Poplar Bluff	Robert Laatsch, Poplar Bluff
"	Fred Caldwell, Poplar Bluff . . .	Austin Tinsley, Poplar Bluff
"	Kirby L. Turner, Poplar Bluff . . .	
"	George H. Ladyman, ...	
	Poplar Bluff	
Callaway	James K. Ritterbusch, Fulton . . .	Henry Durst, Fulton
Cape Girardeau .	Melvin C. Kasten	Jean A. Chapman, Cape Girardeau
"	Cape Girardeau	
"	John K. Holcomb	J. Marshall Jung, Cape Girardeau
"	Cape Girardeau	
"	Harold B. Rapp	Charles H. Cozean, Cape Girardeau
	Cape Girardeau	
Chariton-Macon-		
Monroe-		
Randolph	F. L. Harms, Salisbury	D. D. Stuart, Brunswick
"	James E. Campbell, Macon	Donald E. Eggleston, Macon
"	Floyd A. Barnett, Paris	W. Deward Chute, Moberly
"	G. R. Hudson, Moberly	Clarence C. Cohrs, Moberly
Clay	Donald Kuenzi, Kansas City . . .	C. A. Stratman, Kansas City
"	Truman B. Schertz	Van M. Robinson, N. Kansas City
"	North Kansas City	
"	Richard C. Hedges	F. A. Thomas, Kansas City
"	N. Kansas City	
"	Donald A. Fakhoury	Frank Ise, North Kansas City
	Kansas City	
Clinton	P. T. Luckenbill, Plattsburg . . .	L. A. Ozenberger, Plattsburg
Cole	Robert H. Tanner	Royal S. Garner, Jefferson City
"	Jefferson City	
"	Kenneth K. C. Siu	E. David Scott, Jefferson City
"	Jefferson City	
"	Mary K. McCaffree	Joseph P. Russell, Jefferson City
	Jefferson City	
Cooper	George W. Winn, Boonville . . .	

<i>County</i>	<i>Delegates</i>	<i>Alternates</i>
Dallas-Hickory-		
Polk-Dade . . .	Olin A. Griffin, Buffalo	John K. Legan, Kennett
"	George G. Robinson	
	Humansville	
"	Lee A. McNeel, Jr., Greenfield . .	
"	C. H. Barnett, Bolivar	
Dunklin	George Dunmire, Kennett	
Franklin-		
Gasconade-		
Warren	Samuel Bonney, Washington . . .	George Richardson, Union
"	William Richardson, Union . . .	George Workman, Herman
"	Harold Hoelscher, Warrenton . .	Charles Sincox, Washington
Grand River		
Caldwell	Frank R. Daley, Hamilton	
Carroll	E. Warren Allen, Carrollton . . .	John H. Platz, Carrollton
Daviess	J. Larry Dowell, Pattonsburg . . .	Edward E. Nixon, Gallatin
DeKalb	Fred K. Wilson, Winston	
Grundy	Albert D. Cross, Trenton	Oliver F. Duffy, Trenton
Harrison	Merriam Gearhart, Bethany . . .	Watkins A. Broyles, Bethany
Linn	John R. Dixon, Brookfield	George Gary, Marceline
Livingston . . .	Thomas N. Cofer, Chillicothe . . .	Joseph Conrad, Chillicothe
Mercer	Ralph W. Bohnsack, Brookfield . .	
Greene	Stanley S. Peterson, Springfield . .	David W. Brown, Springfield
"	Walter A. German, Springfield . .	Jay Milne, Springfield
"	Don Menchetti, Springfield . . .	Donald Beisner, Springfield
"	Henry C. Krahn, Springfield . . .	Anita Isaac, Springfield
"	Thomas P. Sweeney	David Spalding, Springfield
	Springfield	
"	Leo M. Wyrsh, Springfield . . .	Charles Ash, Springfield
"	H. B. Ivy, Springfield	Richard Loeb, Springfield
Henry	Richard H. King, Clinton	Kenneth F. Scott, Clinton
Howard	W. J. Shaw, Fayette	William G. Marshall, Glasgow
Jackson	R. Don Blim, Kansas City	Richard E. Baska, Kansas City
"	Irving H. Clark, Kansas City . . .	Lafe W. Bauer, Prairie Village, Kans.
"	Warren F. Wilhelm	Selbert G. Chernoff, Kansas City
	Kansas City	
"	Donald E. McIntosh	Seymour J. Kranson, Independence
	Kansas City	
"	Raymond A. Amoury	James Neumann, Kansas City
	Kansas City	
"	Martin L. Crow, Kansas City . . .	Larry G. Piepergerdes, Kansas City
"	Robert C. Fairchild	David Tillema, Kansas City
	Shawnee Mission, Kans.	
"	John Griffith, Kansas City	James H. Barloon, Kansas City
"	Frederick H. Hartwig	Elwyn S. Brown, Kansas City
	Kansas City	
"	Harry S. Jonas, Kansas City . . .	Daniel J. Cutcliff, Kansas City
"	Robert M. Mathews	Robert W. Doering, Kansas City
	Kansas City	
"	Richardson K. Noback	Jerry C. Freeman, Kansas City
	Kansas City	
"	Thomas P. O'Farrell	Lloyd M. Harlow, Kansas City
	Kansas City	
"	Americo Ramos, Kansas City . . .	Donald A. Potts, Independence
"	O. Dale Smith, Kansas City . . .	Harry C. Wall, Kansas City
"	Walter J. Stelmach	
	Kansas City	
"	Edward J. Twin, Kansas City . .	
"	S. Dwight Woods, Kansas City . .	
"	Ronald A. Youmans	
	Kansas City	
"	Calvin E. Engelmann	
	Kansas City	
"	Fred D. Fowler, Kansas City . . .	
"	Thomas J. Fritzlen	
	Kansas City	
"	Charles P. Gauthier	
	Kansas City	
"	Edward E. Haith, Kansas City . .	
"	William D. Hoadley	
	Kansas City	

<i>County</i>	<i>Delegates</i>	<i>Alternates</i>
Jackson	Edwin E. MacGee, Kansas City	
"	Milton B. Ozar, Kansas City	
"	Joseph A. Pinkerton, Jr.	
	Kansas City	
"	James P. Youngblood	
	Kansas City	
Jasper	John R. Esther, Joplin	Frank Birsner, Joplin
"	Marvin A. Singleton, Joplin	Joe Longenecker, Joplin
"	Robert L. Willcoxon, Joplin	Edward M. Grim, Joplin
Jefferson	Vicente D. Deles	Walter T. Judge, Crystal City
	Crystal City	
Johnson	Alfonso V. Sicat	
	Warrensburg	
Lafayette-Ray	Hugh Brady, Concordia	Jordan Kelling, Waverly
"	George Davault, Richmond	Tom Cook, Richmond
Lewis-Clark		
Scotland	Landis Y. Davis, Canton	
Marion-Ralls-		
Shelby	Carl R. Kruse, Palmyra	Edward M. Plowman, Hannibal
"	Stanley G. Hall, Hannibal	Phillip B. Foreman, Hannibal
"	Charles L. Lichty, Shelbina	P. C. Avila, Hannibal
Mid-Missouri		
Crawford	Gordon W. Riffel, Bourbon	Frank A. Elders, Jr., Cuba
Dent	Roy E. Mitchell, Salem	
Laclede	R. W. Froelich, Lebanon	Howard W. Carrington, Lebanon
Maries	Bernard Draper, Rolla	
Phelps	Barbara E. Russell, Rolla	
Pulaski	Clyde S. Miller, Waynesville	
Miller	Carl T. Buehler, Jr., Eldon	Edward O. Shelton, Eldon
Mineral Area		
St. Francois	Charles W. Chastain	Robert A. Huckstep, Farmington
	Farmington	
Iron	Boonfu Boonyasai, Ironton	
Madison	Chairyarat Sermchief	
	Fredericktown	
Washington	R. V. Simpelo, Potosi	Longius Kim, Rivermines
Reynolds		
Bollinger	Norma D. Farmer, Farmington	
Moniteau	Richard B. Fulks, California	L. M. Gallagher, California
Montgomery	Samuel J. Byland, Wellsville	
Morgan	J. Loren Washburn, Versailles	C. Robert Hall, Versailles
North Central		
Adair	Milton T. English, Jr.	Spencer L. Freeman, Kirksville
	Kirksville	
Schuyler	Francis Tarvydas, Edina	
Knox		
Sullivan		
Putnam		
Northwest		
Nodaway	Robert E. Dunshee, Maryville	G. Raymond Wempe, Maryville
Holt	James Humphrey, Mound City	Elvin D. Imes, Maryville
Atchison	John M. Wanamaker	Edward F. Bare, Tarkio
	Rock Port	
Gentry	Troy Morgan, Albany	Albert Carlin, Stanberry
Worth	Frank B. Matteson	Benjamin F. Byland, Maryville
	Grant City	
Ozarks		
Barry	Mary J. Merideth, Cassville	Francisco R. Esparrago, Jr., Monett
Lawrence	Kenneth Glover, Mt. Vernon	William P. Hamilton, Aurora
Stone	Fred L. Wommack, Crane	
Christian	Stanley D. Roper, Ozark	
Taney	Roy Gillespie, Branson	Charles A. Spears, Branson
Newton	Paul B. Anderson, Neosho	Robert F. Betz, Neosho
McDonald	George W. Blankenship	Roy E. Kenney, Neosho
	Neosho	
Pemiscot		
Perry-Ste.		
Genevieve	Martin L. Key, Ste. Genevieve	Alfred E. McDermott, Perryville
"	Job B. Pontillas, Perryville	Joseph F. Lutkewitte, Ste. Genevieve
Pettis	J. E. Block, Sedalia	
Pike	Glenn E. Miles, Louisiana	Charles H. Lewellen, Louisiana

<i>County</i>	<i>Delegates</i>	<i>Alternates</i>
Platte	I. W. Kimball, Kansas City	Hill C. Thurman, Parkville
St. Charles-		
Lincoln	Paul H. Rother, St. Charles	Ferdinand J. DelPizzo, St. Charles
"	John C. Soucy, St. Charles	Francisco J. Obando, Troy
"	Edward O. Damron, Elsberry	James P. Felder, St. Charles
St. Louis City	Luis B. Anglo, St. Louis	John M. Anderson, St. Louis
"	William C. Banton, II	R. William Burmeister, St. Louis
"	St. Louis	
"	Ralph L. Biddy, St. Louis	Carlo Caciolo, St. Louis
"	George Bohigian, St. Louis	Stanley J. Ciapciak, St. Louis
"	Richard V. Bradley, St. Louis	Stephen R. Crespin, St. Louis
"	Robert D. Brookes, St. Louis	Ronald G. Evens, St. Louis
"	Robert E. Burdge, St. Louis	Donald H. Finger, St. Louis
"	Thomas J. Cooper, St. Louis	George E. Gantner, Jr., St. Louis
"	Pablo C. deUngria, St. Louis	Donald W. Goodwin, St. Louis
"	Robert C. Drews, St. Louis	Clement B. Grebel, St. Louis
"	Richard H. Fallon, St. Louis	William P. Hamilton, St. Louis
"	Robert H. Felix, St. Louis	James N. Heins, St. Louis
"	Murray E. Finn, St. Louis	Harry G. Hightower, St. Louis
"	Max S. Franklin, St. Louis	Ronald E. Hoffman, St. Louis
"	Daniel M. Fraser, St. Louis	Vencel W. Hollo, St. Louis
"	Raymond O. Frederick	Charles A. Jost, St. Louis
"	St. Louis	
"	Paul L. Friedman, St. Louis	Jack Kayes, St. Louis
"	August W. Geise, St. Louis	Edward D. Kinsella, St. Louis
"	Charles R. Gulick, St. Louis	Edward H. Kowert, St. Louis
"	George L. Hawkins, Jr.	Charles B. Ladd, St. Louis
"	St. Louis	
"	Lily Ann Hanes, St. Louis	Vincent LoPiccolo, Jr., St. Louis
"	Robert W. Kelley, St. Louis	Antonio Q. Manasala, St. Louis
"	John J. Kelly, St. Louis	Melvin E. Meyer, St. Louis
"	Lawrence M. Lawton	Marvin Mishkin, St. Louis
"	St. Louis	
"	Leo J. LeBlanc, St. Louis	Frank J. Niesen, St. Louis
"	Francis X. Lieb, St. Louis	Henry D. Onken, St. Louis
"	J. Otto Lottes, St. Louis	Richard T. Quick, St. Louis
"	Robert R. MacDonald, St. Louis . . .	Lester T. Reese, St. Louis
"	Napoleon S. Maminta, St. Louis . . .	Harry Rosenbaum, St. Louis
"	Paul F. Max, St. Louis	Ivan W. Sletten, St. Louis
"	Roger L. Mell, St. Louis	William Stoneman, III, St. Louis
"	Robert N. Miller, St. Louis	George E. Thoma, Jr., St. Louis
"	Lawrence W. O'Neal, St. Louis . . .	George A. Ulett, St. Louis
"	Theodore L. Paletta, St. Louis . . .	John A. Virant, St. Louis
"	F. Eugene Pennington, St. Louis . . .	James M. Whittico, St. Louis
"	David M. Reisler, St. Louis	R. Dean Wochner, St. Louis
"	Hubert A. Ritter, St. Louis	
"	Percival B. Salanga, St. Louis . . .	
"	George Sato, St. Louis	
"	John S. Sciortino, St. Louis	
"	Charles S. Sherwin, St. Louis . . .	
"	Andrew J. Signorelli, St. Louis . . .	
"	Kenneth R. Smith, St. Louis	
"	Clarence M. Turner, St. Louis . . .	
"	Carol F. Wililams, St. Louis	
"	George H. Zografakis, St. Louis . . .	
"	James M. Stokes, St. Louis	
"	Leslie F. Bond, St. Louis	
"	Donald T. Behrens, St. Louis	
St. Louis County	Vernon H. Balster, St. Louis	Robert L. Becker, M.D., St. Louis
"	Robert B. Deitchman, St. Louis . . .	Harry C. Eggleston, St. Louis
"	Allen P. Klippel, St. Louis	Klark Exarhou, St. Louis
"	Robert J. Mueller, St. Louis	Harold J. Freiheit, St. Louis
"	James R. Nakada, St. Louis	Arthur H. Gale, St. Louis
"	Frederick D. Peterson, St. Louis . . .	Ronald K. Grady, St. Louis
"	Rudy Ruhling, St. Louis	Gerald J. Hobson, St. Louis
"	Melvin M. Schwartz, St. Louis . . .	Cathy C. Jarvis, St. Louis
"	James C. Sisk, St. Louis	Chandra S. Kaup, St. Louis
"	Rudolph E. Catanzaro, St. Louis . . .	Howard E. Linder, St. Louis
"	Edwin J. Cunningham, St. Louis . . .	Morris D. Marcus, St. Louis
"	Daniel C. Fabito, St. Louis	Jay L. Meyer, St. Louis
"	John M. Laird, St. Louis	Wilbur A. Mullarky, St. Louis

<i>County</i>	<i>Delegates</i>	<i>Alternates</i>
St. Louis County	Jerry Middleton, St. Louis	William J. Ross, St. Louis
"	David L. Ohlms, St. Louis	W. Gary Sherman, St. Louis
"	Miles C. Whitener, St. Louis	Alan R. Spivack, St. Louis
Saline	C. A. McBurney, Slater	James A. Reid, Marshall
SEMO		
Stoddard	Fuad H. Kandalaft, Dexter	R. T. Hill, Dexter
New Madrid	John P. Sargent, Sikeston	William C. Critchlow, Sikeston
Mississippi	Robert L. Frazier, Charleston	Wilbur L. Davis, Charleston
Scott	Edwin J. Masters, Sikeston	Max A. Heeb, Sikeston
South Central		
Howell	W. Thomas Morgan, Jr.	Ambrose T. Walker, Thayer
	West Plains	
Oregon	C. Franklin Smith	Rollin H. Smith, West Plains
	Willow Springs	
Texas	Joe A. Wall, Houston	Joe L. Spears, Cabool
Wright	O. Martin Hasek	James A. Hasek, Mountain Grove
	Mountain Grove	
Douglas	Laureano G. Mayuga, Cabool	
Ozark	Jack N. Wiles, West Plains	
Webster	T. M. Macdonnell, Marshfield	
West Central		
Bates	William W. Haynie, Butler	Arthur I. Hansen, Butler
Cass	Alfred W. Eklund, Pleasant Hill	Edward S. Jones, Harrisonville
Cedar	Robert L. Magee	Harry V. Langeluttig, Jr., El Dorado Springs
	El Dorado Springs	
St. Clair	Robert H. Brownsberger	G. H. Reed, Appleton City
	Appleton City	
Vernon	R. John Torontow, Nevada	Nelson Greenlund, Nevada

Speaker and Vice Speaker—Delegates-at-Large

James T. Brown, Springfield, Speaker	Edwin K. Burford, Jr., Cape Girardeau, Vice Speaker
--------------------------------------	--

Past Presidents—Delegates-at-Large

James R. McVay, Kansas City	Byron M. Stuart, Boonville
Robert Mueller, St. Louis	Hector W. Benoit, Jr., Kansas City
Guy N. Magness, University City	David N. Kerr, Clayton
H. E. Petersen, St. Joseph	Doyle C. McCraw, Bolivar
Victor B. Buhler, Kansas City	Joseph L. Fisher, St. Joseph
Ralph Perry, Kansas City	Gerald L. Miller, Kansas City
Kenneth C. Hollweg, Kansas City	Walter T. Gunn, St. Louis
Leonard T. Furlow, Crystal River, Fla.	E. A. Stricker, St. James
Paul R. Whitener, St. Louis	James C. Cope, Columbia

Student Delegates-at-Large

<i>University of Missouri-Columbia</i>	<i>St. Louis University</i>
Mr. Tom Prenger	Ms. Dorothy J. Cline
Mr. Steve Cohle	Ms. Tamara Ostapowicz
<i>University of Missouri-Kansas City</i>	<i>Washington University</i>
Mr. Jerry Alstott	Mr. Mark E. Frisse
Mr. Mark Kasten	Mr. Jeffrey D. Coe

COMMERCIAL EXHIBITORS LIST**For the 118th MSMA Annual Session**

<i>Booth</i>	<i>Exhibitors</i>	<i>Booth</i>	<i>Exhibitors</i>
16	ALTMAN-SINGLETON AND COMPANY Kansas City	9	COCA-COLA USA Chicago, Ill.
26	BIOMEDICAL LABORATORIES, INC. St. Louis	20	ENCYCLOPAEDIA BRITANNICA, INC. Chicago, Ill.
17	BLUE CROSS-BLUE SHIELD St. Louis-Kansas City	31	FORREST T. JONES & COMPANY, INC. Kansas City
24	BOEHRINGER INGELHEIM LTD. Elmsford, N. Y.	27	GENERAL AMERICAN LIFE INSURANCE-MEDICARE St. Louis
4	BRISTOL LABORATORIES Syracuse, N. Y.	1	JOHNSTON'S, INC. Shawnee, Kan.
5	CIBA PHARMACEUTICAL COMPANY Kansas City	12	THE KEY COMPANY St. Louis
32	CLINICAL LABORATORIES OF ST. LOUIS, INC. Creve Coeur	10	LEMMON PHARMACAL COMPANY Sellersville, Penn.

COMMERCIAL EXHIBITORS LIST

(Continued from page 120)

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|-----|--|----|--|
| 22 | MALLINCKRODT, INC.
Hazelwood | 15 | SEARLE LABORATORIES
Chicago, Ill. |
| 30 | THE MEDICAL PROTECTIVE COMPANY
Fort Wayne, Ind. | 23 | SOCIAL SECURITY DISABILITY INSURANCE
Kansas City |
| 19 | MEYER LABORATORIES, INC.
Fort Lauderdale, Fla. | 25 | STUART PHARMACEUTICALS
Wilmington, Del. |
| 3 | MSMI, INC.
Jefferson City | 18 | SUMMIT MEDICAL DISTRIBUTORS
Lee's Summit |
| 21 | ORGANON PHARMACEUTICALS
West Orange, N. J. | 28 | TAB PRODUCTS COMPANY
Kansas City |
| 6&7 | PITNEY BOWES
Kansas City | 29 | UNITED MEDICAL EQUIPMENT COMPANY
Kansas City |
| 2 | ROWELL LABORATORIES, INC.
Baudette, Minn. | 8 | VALLEY VIEW COMPUTING SYSTEMS
Overland Park, Kan. |
| 13 | SANDOZ PHARMACEUTICALS
East Hanover, N. J. | 14 | VITALOGRAPH MEDICAL INSTRUMENTATION
Kansas City |
| 11 | SCHERING LABORATORIES
Kenilworth, N. J. | | |

In lieu of Exhibits, the following firms made cash donations to assist in the sponsorship of Scientific Sessions:

ELI LILLY AND COMPANY
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From the Medical Schools



ST. LOUIS UNIVERSITY

St. Louis University has opened a new Arthritis Clinical & Research Center. Located in the new Bordley Memorial Pavilion adjoining St. Louis University Hospitals, the center contains new specialized care areas including hospital rooms exclusively for arthritis patients; trained nursing personnel; physicians with training and expertise in arthritis and allied rheumatic diseases, a multidisciplinary health care team; Physical Medicine Rehabilitation; latest diagnostic and treatment facilities; research programs; and approved educational programs.

"The new Center is unique in the St. Louis area because it provides specialized beds for the arthritis patient," *Jack Zuckner*, M.D., director of the Center, said. "These arthritis beds, plus a coordinated team of medical and paramedical personnel make for a more effective therapeutic approach to the individual who is afflicted with one of the arthritic or allied rheumatic diseases."



Jack Zuckner

The Arthritis Center is organized as a health team which includes rheumatologists, orthopedic surgeons, psychiatrists, social workers, physical and occupational therapists, and nurse clinicians. Special evaluations are available from other disciplines such as radiology, ophthalmology, cardiology, and immunology.

Robert H. Felix, M.D., M.P.H., professor emeritus of psychiatry and community medicine and dean emeritus of the School of Medicine, has received the Health Care Leadership Award by the Hospital Association of Metropolitan St. Louis at its annual meeting recently.

The award is presented annually to the lay or professional person who has demonstrated outstanding leadership and dedication in helping a health care institution or institutions fulfill the mission of service to the community.

Denis Cavanagh, M.D., professor and chairman of the Department of Gynecology and Obstetrics, has been awarded a \$28,297 grant from the St. Louis Area chapter of the Birth Defects-March of

Dimes Foundation. He will study experimental toxemia in pregnancy in the baboon. This is the best animal model now available for simulating human gestational disease, which is one of the most common causes of death in the newborn.

UNIVERSITY OF MISSOURI-KANSAS CITY

William J. Beard, M.D., has joined the faculty of the UMKC School of Medicine as associate professor and docent. Dr. Beard received his M.D. degree from Cornell University and has spent several years in the practice of internal medicine. He has served as clinical research director for Smith, Kline and French Laboratories and, also, Marion Laboratories of Kansas City. Most recently, Dr. Beard has served as Medical Director of John Knox Retirement Village in Kansas City. He joined the faculty on January 1.

The Victor E. Speas Foundation Loan Scholarship Fund for aid to School of Medicine students has received an additional \$47,500 grant from the Speas Foundation. Of this amount, \$22,500 has been designated for the continuing support of those returning students who received financial aid from the fund during 1975-1976 year. The remaining \$25,000 is to be used for the benefit of other students with financial need who are attending the School of Medicine.

George A. Silver, M.D., Professor of Public Health, Yale University School of Medicine, was a visiting docent on February 17-19. He was scheduled to deliver an address on "Health Care Needs in the United States and the Federal Role."

Dr. Silver is a frequent contributor to the literature on the topics of Maternal and Child Health, Health Policy as It Affects Legislation, International Health and the Professional Role of Physicians in Health Care.

UNIVERSITY OF MISSOURI-COLUMBIA

Dr. Richard L. Eddy, a specialist in endocrinology, has been appointed the new director of the Clinical Research Center and an associate professor of medicine. He began his duties at the School of Medicine in January.

Dr. Eddy formally was an associate professor of Medicine at the University of Texas Southwestern Medical School and Chief of the endocrinology-

**12-hour claims
are nothing new.**

**12-hour
relief is.**



NEW

Novafed A[®] Capsules

Each capsule contains pseudo-
ephedrine hydrochloride 120 mg. and
chlorpheniramine maleate 8 mg.

Controlled-Release Decongestant Plus Antihistamin

It goes the distance.



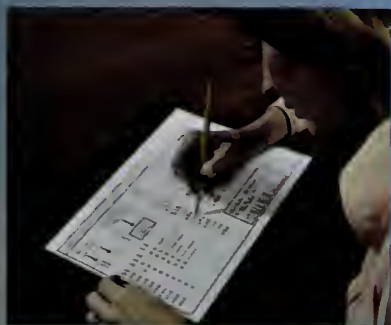
Clinical studies confirm full 12-hour effectiveness.

For years, patients have heard of drugs providing long-lasting relief. But after six or eight hours, they often run out of relief. And it's too soon to take the next dose.

Now, with Novafed A, Dow introduces a prescription capsule with 12-hour effectiveness in relieving allergy and hay fever symptoms. Placebo-controlled clinical studies show that the high level of decongestant in Novafed A provides relief for as long as 12 hours. At the same time, its antihistamine relieves the patient's itchy eyes and runny nose *without* the excessive dryness of anticholinergic agents.

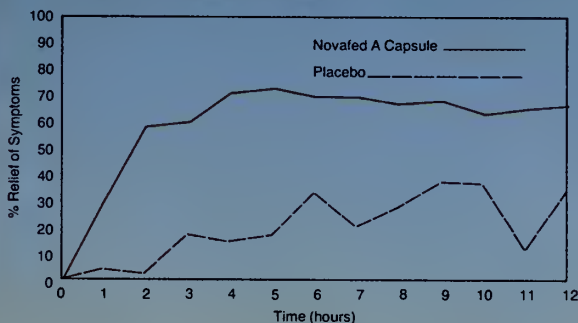
Prompt onset of effect is followed by full 12-hour relief.

(Please refer to the following page for bioavailability studies and prescribing information.)



Patients with severe pollen allergies were tested during hay fever season in a countryside environment and asked to rate severity of five different symptoms on a scale of 1 to 4.

Clinical Study: Degree of Relief from Itchy Eyes and Nose and Throat, Watery Eyes, Runny Nose*



*Unpublished data, Medical Department Files, Dow Pharmaceuticals, The Dow Chemical Company, Indianapolis, Indiana.



Specialists in Cough and Cold Care

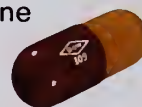


NEW Novafed A Capsules

Each capsule contains pseudoephedrine hydrochloride 120 mg. and chlorpheniramine maleate 8 mg.

Controlled-Release Decongestant Plus Antihistamine

It goes the distance.



Prompt onset and sustained serum levels over 12 hours.

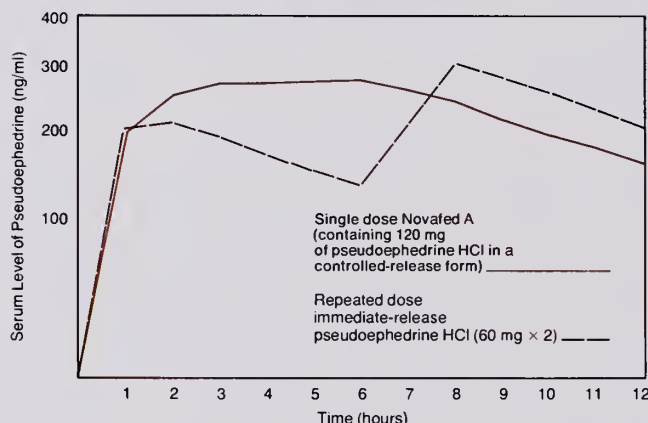
A bioavailability study confirmed that the sustained 12-hour action of Novafed A was comparable to that of immediate-release medication taken at 6-hour intervals.

The chart at the left shows the serum levels of pseudoephedrine. Initial serum levels following one Novafed A Capsule were comparable to those following a single dose of 60 mg. pseudoephedrine hydrochloride in an immediate-release form. Serum levels of pseudoephedrine over a 12-hour period following a single dose of Novafed A were also comparable to

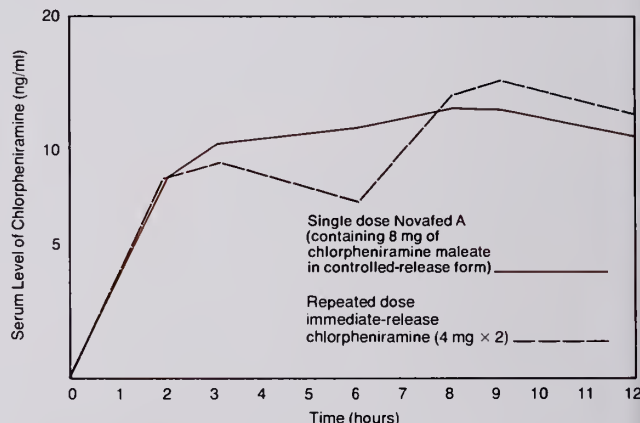
those obtained by an immediate-release form taken every 6 hours.

The chart at the right shows the serum levels of chlorpheniramine. Initial serum levels following one Novafed A Capsule were comparable to those following a single dose of 4 mg. chlorpheniramine maleate in an immediate-release form. Serum levels of chlorpheniramine over a 12-hour period following a single dose of Novafed A were also comparable to those obtained by an immediate-release form taken every 6 hours.

Comparison of Mean Serum Levels of Pseudoephedrine Following Novafed A and an Immediate-Release Reference Formulation*



Comparison of Mean Serum Levels of Chlorpheniramine Following Novafed A and an Immediate-Release Reference Formulation*



*Unpublished data, Medical Department Files, Dow Pharmaceuticals, The Dow Chemical Company, Indianapolis, Indiana.

DESCRIPTION: Each NOVAFED A capsule contains 120 mg. of pseudoephedrine hydrochloride and 8 mg. of chlorpheniramine maleate. The specially formulated pellets in each capsule are designed to provide continuous therapeutic effect for about 12 hours. Nearly one-half of the active ingredients is released soon after administration and the remainder is released slowly over the remaining time period.

ACTIONS: NOVAFED A combines the action of a nasal decongestant, pseudoephedrine hydrochloride, and an antihistamine, chlorpheniramine maleate. These ingredients are combined to provide prompt and sustained nasal and upper respiratory decongestant and antihistaminic action.

INDICATIONS: NOVAFED A is indicated for the relief of nasal congestion and eustachian tube congestion associated with the common cold, sinusitis and acute upper respiratory infections. It is also indicated for perennial and seasonal allergic rhinitis, vasomotor rhinitis, allergic conjunctivitis due to inhalant allergens and foods and for mild, uncomplicated allergic skin manifestations of urticaria and angioedema. Decongestants in combination with antihistamines have been used for many years to relieve eustachian tube congestion associated with acute eustachian salpingitis, aerotitis media, acute otitis media and serous otitis media. NOVAFED A may be given concurrently, when indicated, with analgesics and antibiotics.

CONTRAINDICATIONS: Sympathomimetic amines are contraindicated in patients with severe hypertension, severe coronary artery disease, and in patients on MAO inhibitor therapy. Antihistamines are contraindicated in patients with narrow-angle glaucoma, urinary retention, peptic ulcer, during an asthmatic attack, and in patients receiving MAO inhibitors.

Children under 12: NOVAFED A controlled-release capsules should not be used in children less than 12 years of age.

Nursing Mothers: Pseudoephedrine is contraindicated in nursing mothers because of the higher than usual risk for infants from sympathomimetic amines.

Hypersensitivity: This drug is contraindicated in patients with hypersensitivity or idiosyncrasy to sympathomimetic amines or antihistamines. Patient idiosyncrasy to adrenergic agents may be manifested by insomnia, dizziness, weakness, tremor or arrhythmias.

WARNINGS: Sympathomimetic amines should be used judiciously and sparingly in patients with hypertension, diabetes mellitus, ischemic heart disease, increased intraocular pressure, hyperthyroidism, or prostatic hypertrophy. Sympathomimetics may produce central nervous system stimulation and convulsions or cardiovascular collapse with accompanying hypotension.

Antihistamines may impair mental and physical abilities required for the performance of potentially hazardous tasks, such as driving a vehicle or operating machinery, and mental alertness in children. Chlorpheniramine maleate has an atropine-like action and should be used with caution in patients with increased intraocular pressure, hyperthyroidism, cardiovascular disease, hypertension or in patients with a history of bronchial asthma.

Do not exceed recommended dosage.

Use in Pregnancy: The safety of pseudoephedrine for use during pregnancy has not been established.

Use in Elderly: The elderly (60 years and older) are more likely to have adverse reaction to sympathomimetics. Overdosage of sympathomimetics in this age group may cause hallucinations, convulsions, CNS depression, and death. Therefore, safe use of a short-acting sympathomimetic should be demonstrated in the individual elderly patient before considering the use of a sustained-action formulation.

PRECAUTIONS: This drug should be used with caution in patients with diabetes, hypertension, cardiovascular disease and hyperreactivity to ephedrine. The antihistaminic may cause drowsiness and ambulatory patients who operate machinery or motor vehicles should be cautioned accordingly.

ADVERSE REACTIONS: Hyperreactive individuals may display ephedrine-like reactions such as tachycardia, palpitations, headache, dizziness, or nausea. Patients sensitive to antihistamines may experience mild sedation.

Sympathomimetic drugs have been associated with certain untoward reactions including fear, anxiety, tenseness, restlessness, tremor, weakness, pallor, respiratory difficulty, dysuria, insomnia, hallucinations, convulsions, CNS depression, arrhythmias, and cardiovascular collapse with hypotension.

Possible side effects of antihistamines are drowsiness, restlessness, dizziness, weakness, dry mouth, anorexia, nausea, headache and nervousness, blurring of vision, heartburn, dysuria and very rarely, dermatitis.

DRUG INTERACTIONS: MAO inhibitors and beta adrenergic blockers increase the effect of sympathomimetics. Sympathomimetics may reduce the antihypertensive effects of methyl dopa, mecamylamine, reserpine and veratrum alkaloids. Concomitant use of antihistamines with alcohol, tricyclic antidepressants, barbiturates and other central nervous system depressants may have an additive effect.

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The Clinical Research Center is a nine-bed unit which provides a controlled research environment for patients who express an interest in participating in selected research studies undertaken by faculty members.

Since its organization in Columbia in 1971, a group known as *Neo-fights* has worked steadily to raise funds to purchase life-saving equipment for

critically ill newborns in the Medical Center Nursery.

The Nursery has received two cardiac monitors, an infusion pump, a neonatal examining table and three modular units for incubators that can be used as replacements if a breakdown occurs.

Because of their dedication and generous support, members of the *Neo-fights* were honored by the Child Health Department on February 12.

Breast Cancer Project Receives Teaching Grant: Offers Course in Early Breast Cancer Detection

The Columbia (Mo.) Breast Cancer Detection Demonstration Project has been awarded a Teaching Grant from the Cancer Control Section of the Department of Health, Education and Welfare of the Public Health Service.

The purpose of this teaching program is to introduce and to teach in depth the modalities currently used in earlier breast cancer detection. These include xeroradiography, thermography and physical examination. The course (a minimum of one week), is open to paramedical personnel of Missouri, including x-ray technologists, thermography technologists and nurses. Training for interested physicians will be organized on an individual basis.

The course is designed to acquaint the medical community with various techniques for breast cancer detection, implementation of future programs and modalities to be installed in their institutions or private practice can be facilitated.

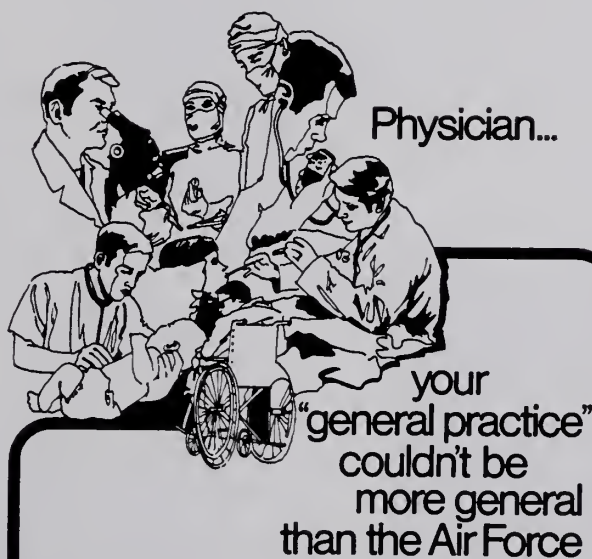
Each individual will be taught on a one-to-one basis, i.e., one student—one instructor. The program will be tailored for each individual's goals, previous education, experience and future use. For example, for the interested x-ray technologist, the techniques of mammography (xeroradiography) and thermography will be stressed. For the radiologist physician, interpretation of the two images will be one of the educational goals. All three modalities will use teaching files of both normal and abnormal examinations; a reprint file and a medical library and audio-visual aids.

There is no fee for this course. The participants enrolled in this course should be prepared to furnish their own lodging and meals, except lunch.

Motels are within walking distance of the Cancer Research Center building in which the Breast Cancer Detection Demonstration Project Teaching Program will be given, and there is availability of lunch at no cost at the Ellis Fischel State Cancer

Hospital, which is located in this medical complex. The participants also will have to furnish their own method of transportation.

Dates for the course will be announced later for those who desire to attend. Anyone interested in attending this course should contact Dr. Corinne Farrell, Associate Program Director, Breast Cancer Detection Demonstration Project, Business Loop 70 & Garth Ave., Columbia, Mo. 65201.



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Testing in Humans: Who, Where & When.

The weight of ethical opinion:

Few would disagree that the effectiveness and safety of any therapeutic agent or device must be determined through clinical research.

But now the *practice* of clinical research is under appraisal by Congress, the press and the general public. Who shall administer it? On whom are the products to be tested? Under what circumstances? And how shall results be evaluated and utilized?

The Pharmaceutical Manufacturers Association represents firms that are significantly engaged in the discovery and development of new medicines, medical devices and diagnostic products. Clinical research is essential to their efforts. Consequently, PMA formulated positions which it submitted on July 11, 1975, to the Subcommittee on Health of the Senate Labor and Public Welfare Committee, its official policy recommendations. Here are the essentials of PMA's current thinking in this vital area.

1. PMA supports the mandate and mission of the National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research and urges to establish a special committee composed of experts of appropriate disciplines familiar with the industry's research methodology to volunteer its advice to the Commission.

2. PMA supports the formation of an independent, expert, broadly based and representative panel to assess the current state of drug innovation and the impact on it of existing laws, regulations and procedures.

3. When FDA proposes regulations, it should prepare and publish in the *Federal Register* a detailed statement assessing the impact of those regulations on drug and device innovation.

4. PMA proposes that an appropriately qualified medical organization be encouraged to undertake a comprehensive study of the optimum roles and responsibilities of the sponsor and physician when company-sponsored clinical research is performed by independent clinical investigators.

5. PMA recognizes that the physician-investigator has, and should have, the ultimate responsibility for deciding the substance and form of the informed consent to be obtained. However, PMA recommends that the sponsor of the experiment aid the investigator in discharging this important responsibility by providing (1) a document detailing the investigator's responsibilities under FDA regulations with regard to patient consent, and (2) a written description of the relevant facts about the investigational item to be studied, in comprehensible lay language.

6. In the case of children, the sponsor must require that informed consent be obtained from a legally appropriate representative of the participant. Voluntary consent of an older child, who may be capable of understanding, in addition to that of a parent, guardian or other legally responsible person, is advisable. Safety of the drug or device shall have been assessed in adult populations prior to use in children.

7. PMA endorses the general principle that, in the case of the mentally infirm, consent should be sought from both an understanding subject and from a parent or guardian, or in their absence, another legally responsible person.

8. Pharmaceutical manufacturers sponsoring investigations in prisons must take all reasonable care to assure that the facilities and personnel used in the conduct of the investigations are suitable for the protection of participants, and for the avoidance of coercion, with a respect for basic humanitarian principles.

9. Sponsors intending to conduct non-therapeutic clinical trials through the participation of employee volunteers should expand the membership and scope of its existing Medical Research Committee, or establish such an internal Medical Research Committee, with responsibility to approve the consent forms of all volunteers, designs, protocols and the scope of the trial. The Committee should also bear responsibility to ensure full compliance with all procedures intended to protect employee volunteers' rights.

10. Where the sponsor obtains medical information or data on individuals, it shall be accorded the same confidential

status as provided in codes of ethics governing health care professionals.

11. PMA and its member firms accept responsibility to aid and encourage appropriate follow-up of human subjects who have received investigational products that cause latent toxicity in animals or, during their use in clinical investigation, are found to cause unexpected and serious adverse effects.

12. PMA supports the exploration and development by its member companies of more systematic surveillance procedures for newly marketed products.

13. When a pharmaceutical manufacturer concludes, on the basis of early clinical trials of a basic new agent, that a new drug application is likely to be submitted, a proposed development plan accompanied by a summary of existing data, would be submitted to the FDA. Following a review of this submission, the FDA, and its Advisory Committee where appropriate, would meet with the sponsor to discuss the development plan. No *formal* FDA approval should be required at this stage. Rather, the emphasis should be on identification of potential problems and questions for the sponsor's further study and resolution as the program develops.

The PMA believes that health professionals as well as the public at large should be made aware of these 13 points in its Policy on Clinical Research. For these recommendations envisage constructive, cooperative action by industry, research institutions, the health professions and government to encourage creative and workable responses to issues involved in the clinical investigation of new products.



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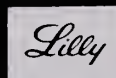
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DENIS CAVANAGH, M.D., PRAPHAT HOVADHANAKUL, M.D.
and HERBERT B. TAYLOR, M.D., *St. Louis*

Invasive Carcinoma of the Vulva: Current Views on Diagnosis and Treatment

LESS THAN 30 YEARS AGO, the five-year survival rate for patients with vulvar carcinoma was in the region of 15%.¹ This appalling state of affairs was largely accounted for by delay in diagnosis, unsound treatment and the then prevalent opinion that these patients were beyond the pale of definitive therapy. The steady increase in life expectancy has brought vulvar cancer into a more prominent place among gynecologic malignancies. During the past two decades, there has been a more concentrated attack on the problem.²⁻⁷

Improved survival rates have resulted from emphasis on early diagnosis, a better understanding of the nature and modes of spread of the disease and a more extensive surgical approach. At the present time, the accepted treatment of invasive carcinoma of the vulva consists of radical vulvectomy with bilateral groin and pelvic lymphadenectomy. However, Way⁸ has cautioned against routine pelvic lymphadenectomy and McKelvey and Adcock⁷ have frankly questioned its value. Also, there is evidence that microinvasive carcinoma of the vulva may be treated effectively without groin or pelvic node dissection.⁹

METHOD AND MATERIALS

During the period from 1955 to 1970, sixty-seven patients with invasive carcinoma of the vulva were seen in the Department of Obstetrics-Gynecology of the University of Miami School of Medicine, Jackson Memorial Hospital and at the St. Louis

University hospitals. Seven cases were excluded because of insufficient basic data, leaving 60 cases which were followed for a minimum of five years.

RESULTS OF ANALYSIS

Age

Carcinoma of the vulva may occur in young women, although the disease is certainly more common after the age of 50 years. In the present series, the patients' ages ranged from 32 to 92 years. Although the median age was 60 years, the disease was found in a considerable number of comparatively young women. Thirty-one women (51.7%) were in the 31- to 60-year age group and 29 (48.3%) were over 60 years of age.

In the presence of advanced age and associated general disorders, the operative mortality is higher and there is a tendency to elect something less than adequate resection. From a review of the literature, it is clear that when the treatment of cancer of the vulva is too limited, it gives disappointing results.¹⁰ On the other hand, although the patient deserves "adequate" surgical resection, it is essential that any extension in the scope of surgical resection be associated with an improvement in survival rates.

RACIAL INCIDENCE

The incidence of black patients in reported series varies from 1.7% to 23%.^{2,10} Only 11 of our 60 patients (18.3%) with carcinoma of the vulva

were black, whereas more than 60% of gynecological patients seen at the institutions mentioned above over the study period were black. It also is interesting to note that eight of these 11 women were considerably younger than the average patient with carcinoma of the vulva, their ages ranging from 35 to 49 years. The preponderance of carcinoma of the vulva in white women may be a reflection of the relatively increased life expectancy rather than any racial predisposition. It is worthy of note, however, that more than 35 years ago, Taussig¹¹ pointed out that cancer of the vulva was comparatively rare in black patients and suggested that, because of a difference in histophysiology, their skin did not favor the development of either leukoplakia or malignancy. Considering the relative paucity of black patients in our series, this is still an interesting speculation.

PARITY

Carcinoma of the vulva appears to be more prevalent among nulliparous women. In the present series, 15 patients (25%) were nulliparous. This is in keeping with an incidence of 29% reported by Boutselis and his coworkers⁵ and an incidence of 38% reported by Green *et al.*² There is no explanation for this apparent predilection for the nulliparous woman, but it may depend on unknown hormonal or metabolic factors.

SYPHILIS

There was a 10% incidence of syphilis among the patients with carcinoma of the vulva. Four of 11 black patients and two of 49 white patients gave a history of syphilis and had positive serology.

LEUKOPLAKIA

The presence of true leukoplakia as a precursor to vulvar cancer has been stressed by some authors. Green *et al.*² speculated that, perhaps, leukoplakia deserved the title of squamous carcinoma grade $\frac{1}{2}$ and reported an incidence of 58% in their series of patients. In the present series, only seven patients (11.7%) had significant leukoplakic changes, i.e., involving cellular atypism as well as hyperkeratosis. It is generally agreed that women with leukoplakia must be urged to return frequently for follow-up and any suspicious areas biopsied. Many gynecologists advocate prophylactic vulvectomy for leukoplakia, but the decision for this should rest on an appraisal of the degree of cellular unrest rather than the "name-tag" placed on the pathology report.

GRANULOMATOUS DISEASE OF VULVA

There is evidence that granuloma inguinale, lymphogranuloma venereum and even condyloma acuminatum may predispose to malignant disease.^{6, 10, 12} Granulomatous venereal disease was found by Lunin to have preceded the malignant lesion in 60% of black women with carcinoma of the vulva. In the present series, there were two patients who had granulomatous disease of the vulva, one having lymphopathia venereum and the other having granuloma inguinale.

PREGNANCY

Two patients were pregnant, one being in the second trimester and one in the third trimester at the time of diagnosis of carcinoma of the vulva. The latter case has been reported elsewhere with a discussion of the problem in pregnancy.¹³

HYPERTENSION

Eighteen patients (30%) with carcinoma of the vulva had associated hypertension. There was insufficient information with regard to patient weights in this series. According to many reports,^{2, 5, 10} a significant proportion of patients with carcinoma of the vulva suffer from obesity, hypertension and generalized arteriosclerosis. These characteristics are probably related in part to age; they also are said to typify the patient with endometrial carcinoma. It should be emphasized that in spite of their age and associated medical disease, these patients are usually good operative risks and withstand extensive surgery very well.

DIABETES MELLITUS

It has been suggested that there is an increased incidence of diabetes in patients with vulvar carcinoma, although diabetic vulvitis is not present in a significant number.^{5, 10} In the present series, only one of 60 patients (1.7%) was found to have diabetes.

MULTIPLE MALIGNANCIES

Three women (5%) had cancer at other sites before the development of vulvar malignancy. This is in accordance with the incidence of 3.7% reported by Warren and Gates in 1932¹⁴ and 6% reported by Boutselis in 1963. However, it is in marked contrast to the 13.4% reported in a series of 238 vulvar carcinomas reported by Green and coworkers in 1958.²

PATHOLOGY

Fifty-seven patients (95%) had squamous carcinoma of the vulva, the lesion being typically well differentiated. A multicentric origin was present in 16 (27%) of these patients.

Three patients had an adenocarcinoma, and all of these lesions arose in Bartholin's gland.

ANATOMIC SITE OF THE PRIMARY LESION

The primary lesion was on the labia in 78.3% of the patients, which compares closely with the figure of 75% quoted by Boutselis *et al* in 1963⁵ and, also with the findings reported by Green and coworkers in 1958.² In 1957, Way⁸ reported that approximately 50% of the lesions in his series originated in the region of the clitoris; in the present series, only six (10%) were noted to be originating in this area.

DELAY IN DIAGNOSIS

Patient delay was noted in 49 cases (82%). The longest delay in seeking medical advice was 20 years. Physician delay could not be ascertained accurately in our series, but Boutselis *et al*⁵ noted physician delay in 50% of their cases. The usually advanced age of the patient is perhaps a contributory factor in this delay, since these patients do not readily seek medical attention. Physician delay may possibly stem from the relative infrequency of cancer in this site compared with benign lesions.

DIAGNOSIS

The local lesion. All vulvar lesions should arouse suspicion of malignancy. All should be biopsied. If necessary, multiple biopsies should be obtained. Because it is often difficult to choose the sites for biopsy in patients with extensive vulvar lesions, Collins and coworkers¹⁵ suggested that Richart's¹⁶ method of staining the cervix should be applied to the vulva. One main application of the "Collins test" would appear to be in the selection of a few sites for biopsy when a patient presents with a leukoplakie lesion extending from the mons veneris to the anus. This test is very simple and has applicability to clinic and office practice. (1) The vulva is painted with a 1% aqueous solution of toluidine blue. (2) After waiting for one minute, the area is washed with 1% acetic acid. If the vulva is normal, the blue dye will wash off. Any suspicious area will remain deeply stained. When this test is carried out in the operating room, it should be done prior to the perineal preparation with antiseptic solutions.

The five-year survival rate for patients with vulvar carcinoma was approximately 15% less than 30 years ago. Although patients with cancer of the vulva are elderly and frequently have significant medical complications, more than 50% can now be cured. Improved survival rates have resulted from emphasis on early diagnosis and a more extensive surgical approach. The authors are from the departments of gynecology-obstetrics and pathology, St. Louis University School of Medicine. This paper was presented at the meeting of the Missouri Chapter, American College of Surgeons in St. Louis on June 6, 1975.

CYTOLOGY

Vaginal smears as a potential diagnostic aid were not analyzed in this series. It stands to reason, however, that the routine vaginal-smear technique is of limited value in the diagnosis of early vulvar cancer. Although smears prepared directly from vulvar scrapings may be useful, these areas should nevertheless be biopsied. If the patient has a cervix, a smear should be made, because vulvar and cervical neoplastic disease are frequently co-existent.

COLPOSCOPY

Colposcopy is beginning to gain popularity in diagnosis of carcinoma of the vulva. However, the vascular patterns are more difficult to identify when compared with the vagina and the cervix, so we have not found this technique to be of any significant value in the detection of vulvar carcinoma.

PALPABLE GROIN NODES

Some authors^{2, 17} have stated that clinical estimation of lymph node involvement is unreliable. In other reported series,^{1, 18} the findings indicated that palpable nodes were more likely to have tumor involvement than nonpalpable ones. In the present series, it will be noted that palpable nodes were histologically positive in 12 of 19 patients (63%) while only one of 20 patients (5%) with nonpalpable nodes had histologically positive nodes. The use of lymphography is probably of more value than palpation in determining involvement of the regional lymph nodes.^{18, 19}

PRETREATMENT INVESTIGATIONS

When a patient with a vulvar lesion is seen, a thorough investigation should be undertaken. The following represents our pretreatment investigation of such a patient:

1. Routine studies (complete blood count, urinalysis, SMA₁₂, VDRL and two-hour, postprandial blood sugar).
2. Papanicolaou smear, colposcopy, toluidine blue test, biopsy of vulvar lesion or "Collins positive" area.
3. Screen for granulomatous disease of the vulva (VDRL, Frei test, darkfield illumination for *T. pallidum* and smear for *hemophilus ducreyi* and Donovan bodies).
4. X-ray of chest, IVP, barium enema.
5. Examination under anesthesia, cystoscopy and sigmoidoscopy.
6. Liver studies (scan, etc.).
7. Metastatic bone series when indicated.
8. Lymphography in selected cases.

METHODS OF MANAGEMENT AND RESULTS

Provided the disease is resectable, the definitive treatment for invasive carcinoma of the vulva should be nothing less than extensive excision of the vulva with bilateral groin lymphadenectomy. The primary lesion and groin nodes should be removed in continuity. The operation may be carried out under local anesthesia as suggested by McKelvey and Adcock in 1965.⁷ If pelvic lymphadenectomy is also to be carried out, the whole procedure may be performed in two stages. Generally speaking, however, even when pelvic lymphadenectomy is to be included, a one-stage procedure is much to be preferred.

A detailed description of the technique of radical vulvectomy with regional lymphadenectomy is not necessary here, but a few points are worthy of note.

1. A curvilinear incision from the right to the left anterior superior iliac spine and running 2 cm above the groin creases gives adequate exposure for both groin and pelvic lymphadenectomy.
2. The lymphatics from the anterior part of the vulva traverse the mons pubis, so this should be included with the specimen.
3. The lateral limits of the vulvar incision generally follow the labiocrural folds, but it should clear the tumor by at least 2 cm. Most failures are due to inadequate local excision.
4. During the dissection along the femoral artery, the external pudendal artery should be identi-

fied. This structure almost constantly provides a guide to the sapheno-femoral junction.

5. The inguinal canals should be opened bilaterally and the extraperitoneal spaces explored to the bifurcation of the aorta. The lowermost of the external iliac nodes and any other palpable nodes should be sent for "frozen section." If a positive node is found, total bilateral pelvic lymphadenectomy should be performed.

6. When pelvic lymphadenectomy is carried out, it is usually unnecessary to sacrifice the deep epigastric vessels, and their preservation will aid wound healing.

7. Care must be taken to close the femoral canals following removal of their contents or herniation will occur.

8. Bilateral transplantation of the sartorius muscle to cover the femoral vessels is well worth the additional time spent. Nonabsorbable sutures (#00 silk) should be used for fixation of the proximal end of the muscle and fascia to the inguinal ligament.

9. Even a small rectocele should be repaired, because this will almost certainly become larger after vulvectomy.

10. Up to two thirds of the urethra can be removed with little tendency to incontinence, provided the vulvar or vaginal skin is undermined and brought to the urethra. Thus, traction on the remaining portion of the urethra is minimal and the normal vesico-urethral angle is maintained.

11. Drainage of both groins must be adequate and medium-size Hemovac suction devices serve this purpose well.

The plan of therapy in our cases was individualized on the basis of the general condition of the patient and the extent of the disease. The type of therapy received by the 60 patients has been categorized into two groups: (a) curative and (b) palliative. Details are given in Table 1.

It has been agreed by most authorities that radiation therapy is of no value in the primary treatment of cancer of the vulva and is of little benefit even in palliation. Rutledge¹⁰ is of the opinion that in some patients, when the tumor is abnormally extensive or when the lesion cannot be totally excised because of unusual spread, radium needle implants can be used to extend the treatment area. There exists the possibility, however, that radiation may jeopardize the healing capacity of normal tissue should the patient be later subjected to surgery as was observed in one of our cases. Pelvic perfusion with anticancer drugs was carried out in two

of our patients for purely palliative purposes. We have found²⁰ that pelvic infusion is as effective as pelvic perfusion with fewer complications, so the latter technique has been discontinued. Since present anticancer agents are not particularly effective and the pelvic vasculature is difficult to isolate, infusion should not be carried out on operable patients.

POSTOPERATIVE MORTALITY AND MORBIDITY

One of 43 patients treated by radical excision and regional lymphadenectomy died of septic shock on the 13th postoperative day, giving an operative mortality of about 2.3%.

The main complication of radical vulvectomy with regional lymphadenectomy was wound breakdown. In this series, primary wound healing was attained in only four of 43 cases (9.3%). The reduced blood supply to the skin of the groin area impairs primary healing. One of the four patients whose wound healed by primary intention and one other who had minimal separation of the wound edges were pregnant. This suggests that the increased vascularity of the tissues during pregnancy favors primary healing. The second factor impairing primary healing is tension along the suture lines. Way³ apparently has overcome this problem by undercutting the incision to the level of the deep fascia and reducing tension on the vulvar and thigh incisions by adducting the legs and keeping the thighs flexed for ten days after the operation. We have not done this because of the fear of phlebothrombosis. Some authors advocate primary skin grafting but, after a number of attempts in association with plastic surgery colleagues, the value of this procedure appears to be more than outweighed by the immobilization of these embolism-prone patients. Accordingly, we believe that the wound should be closed and breakdown treated by the application of honey.²¹

Postoperative hemorrhage occurred from rupture of the femoral artery in three of our patients, and rupture of the femoral vein occurred in one patient. This has led us to adopt bilateral sartorial transplantation routinely. The transposed muscles cover the large vessels, protecting them and possibly improving the blood supply to the vessel walls and overlying skin flap.

Edema of the lower extremities is a frequent occurrence because of loss of lymphatics and scar tissue blocking the reestablishment of collateral lymphatic pathways from the extremity. In our series, however, severe and persistent lymphedema

TABLE 1
CARCINOMA OF VULVA—MANAGEMENT SUMMARY

	<i>No. of Patients</i>
A. Curative treatment	
Radical vulvectomy with inguinal node and pelvic node dissection	31
Radical vulvectomy with inguinal node and pelvic node dissection and exenteration	4
Radical vulvectomy with inguinal node dissection	8
Radical vulvectomy	7
Total	50
B. Palliative treatment	
Inadequate vulvectomy	5
Radiation	3
Pelvic perfusion	2
Total	10

occurred in only five patients (11.7%).

DISCUSSION

From the analysis of 60 patients with invasive vulvar carcinoma and a review of the literature, certain points seem worthy of note. Vulvar carcinoma is a disease of slow development, and it appears that chronic irritative lesions of the vulva are predisposing factors. It is generally less common in black women. A positive serologic test for syphilis was noted in 10% of the women in this series, and it is possible that this disease or the circumstances under which it is contracted impart a predisposition. Leukoplakia with atypism was found in only 11.7% of the patients. If one is to accept "leukoplakia" as precancerous, adequate surgical therapy becomes mandatory, but the important feature of these lesions is not the gross appearance but the presence or absence of atypia on microscopic examination. Not every patient with "leukoplakia" (descriptive term for a white patch on the vulva) needs even a simple vulvectomy, but all patients with significant atypism should be considered for simple vulvectomy. For conservative treatment, 5-fluorouracil ointment is frequently mentioned as a treatment of choice for premalignant vulvar lesions. For a significant lesion, however, we feel that vulvectomy is preferable.

Numerous reports attest to prolonged patient and physician delay in the diagnosis of the disease. Treatment delay on the part of the physician may be due to failure to examine the patient properly or failure to recognize an early lesion. In essence, it often represents failure to consider the possi-

bility of vulvar carcinoma. Perhaps the sensitivity and vascularity of the vulvar tissues discourages the physician from performing a biopsy, particularly in view of the fact that vulvar lesions are often benign.

The use of the Collins test as a screening procedure would appear to be worthy of extensive clinical trial. In a study of 13 cases of carcinoma of the vulva, Collins and coworkers¹⁵ obtained a positive test in all instances, and there was no retention of the stain in 81 control patients. This technique also is of practical value in helping to define the limits of surgical excision. However, one should be aware of false positive results in some benign ulcers of the vulva at the site of a previous biopsy or when the epidermis has been removed on shaving the vulva.

Clinical assessment of lymph node involvement is reasonably reliable. When nodes are not palpable on careful examination, they are rarely involved. When a node is palpable, however, the chance of metastasis is approximately 50%. Lymphography may be helpful in detecting nodal involvement, but false negative results will be obtained even with the best technique, since tiny microscopic metastases in lymph nodes will not be visualized radiographically. On the other hand, a definitely positive lymphogram is of significance and will be helpful in the evaluation and treatment of the patient. If a preoperative lymphogram has been performed, a radiograph taken in the operating room after lymphadenectomy may show nonresected pelvic nodes and consequently, is an aid to the surgeon in performing a more complete lymphadenectomy.

Radical surgery is the treatment of choice. Radiotherapy has little place in the management of this disease. "Adequate surgical excision" for invasive carcinoma of the vulva is usually defined as radical vulvectomy with dissection in continuity of

the iliofemoral lymph nodes. In recent years, however, a number of authors^{1,7} have expressed doubt as to whether pelvic lymphadenectomy is indicated when the groin nodes are free of tumor.

Way found involvement of pelvic lymph nodes in only 3% of his patients in the absence of superficial lymph node involvement. Although Collins *et al*⁶ reported six of 71 patients with tumor involvement of the pelvic lymph nodes, only two (3%) of these patients did not have a recognizable metastasis in the superficial nodes. In the present series, there were no patients with positive pelvic nodes and negative superficial nodes, so we agree with the view that pelvic lymphadenectomy should not be performed routinely. On the other hand, when inadequate therapy such as local excision, hemivulvectomy or simple vulvectomy is carried out, a considerable decrease in the cure rate must be expected. Despite the advanced age of many of the patients in our series, it is encouraging that the operative mortality in the 43 patients with extensive procedures was only 2.3%.

There appears to be no question that, in this disease, adequate excision of the primary lesion, to include exenteration if necessary, is more important than the routine performance of pelvic lymphadenectomy. Chemotherapy, with currently available drugs, has little place. However, pelvic infusion is justifiable when other methods are impractical or have failed to control the disease.

Although patients with cancer of the vulva are elderly and frequently have significant medical complications, more than 50% can be cured.⁷ When no nodal metastases were present, the five-year survival rate reported by Way was 85%; by Green and coworkers, 86%; and by Collins *et al*, 80%. When nodal metastases were present the corresponding five-year survival rates were 30%, 61% and 18%. From our own smaller series, it also is apparent that tumor involvement of the lymph nodes decreases the expectation of cure.

As will be noted from Table 2, the one-year survival rate on this basis was 37 of 60 patients (61.6%). When the curable group only was considered, the one-year survival rate was 36 of 50 patients (72%). Only one of 10 (10%) in the "palliative" group survived, this patient having undergone pelvic perfusion. The five-year survival rate was 32 of 60 patients (53.3%) despite the fact that 27 of 60 patients (45%) had FIGO Stage III or IV disease (International Federation of Gynecology and Obstetrics) when first seen.

It is apparent that tumor involvement of the

TABLE 2
CARCINOMA OF THE VULVA—TREATMENT
RESULTS BY CLINICAL STAGE

Clinical Stage (FIGO-1967)	No. of Patients	Survival 1 Year	Survival 5 Years
Stage I	19	17	16
Stage II	14	11	9
Stage III	16	7	5
Stage IV	11	2	2
	60	37	32
		(61.6%)	(53.3%)

lymph nodes is associated with a rather poor prognosis. Only four of 12 patients (33%) with positive nodes survived, compared with 23 of 31 patients (74%) with negative nodes. In Macafee's⁴ series, the five-year survival rate for 30 patients with positive nodes was 33% compared with 68% for 47 patients with negative nodes. Of considerably more interest, however, is the fact that only about 50% of the patients with positive nodes survived the first year compared with 90% of the patients with negative nodes. After the first year, the probability for survival of patients with positive nodes increases so that by the second anniversary of the operation, their chance of survival is about the same as for patients with negative nodes. Thus, the one-year survival rate provides a reasonable index of long-term survival in patients treated for carcinoma of the vulva.

SUMMARY

1. Sixty patients with invasive carcinoma of the vulva seen in the Department of Obstetrics-Gynecology at the University of Miami School of Medicine, Jackson Memorial Hospital and the St. Louis University hospitals, from 1955 through 1970 are analyzed.

2. Use of the Collins test in patients with leukoplakia and other lesions of the vulva is suggested for the purpose of selecting optimum biopsy sites.

3. Radical vulvectomy, bilateral groin or pelvic lymphadenectomy was performed in 39 patients; in addition to ilio-femoral lymphadenectomy, pelvic exenteration was performed in four patients. There was only one death attributable to the 43 radical operations (2.3%).

4. Significant postoperative complications were wound breakdown in 39 (91%), rupture of the femoral artery in three (7%), rupture of the femoral vein in one (2.3%) and persistent leg edema in five (11.7%).

5. One-year survival rates were as follows: five of 12 patients with positive lymph nodes and 25 of 31 patients with negative nodes. The overall one-year survival rate was 61.6%, and overall five-

year survival rate was 53.3%. Of ten patients treated palliatively, only one survived the first year.

6. No patient with negative groin nodes had positive pelvic nodes so the wisdom of "routine" pelvic lymphadenectomy is in doubt. However, it is felt that the extraperitoneal spaces should be explored bilaterally with the lowermost of the external iliac nodes and any enlarged nodes being removed for "frozen section." Bilateral pelvic lymphadenectomy is performed if any of these nodes are positive.

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Repair of Esophageal Atresia and Tracheoesophageal Fistula

SINCE THE FIRST SUCCESSFUL repair of esophageal atresia and tracheoesophageal fistula (TEF) more than 30 years ago, there has been continuing improvement in the survival of infants with this anomaly. A survey of the members of the Surgical Section of the American Academy of Pediatrics presented in 1964 revealed an overall survival of 65%.¹ Reports of survival approaching 100% in term infants have been published.²

With improved ability to sustain neonates with esophageal atresia and TEF and steadily improving mortality statistics, it seems justifiable to seek means of lessening complications associated with the repair of this anomaly. Distractive tension at the site of the esophageal anastomosis accounts in large part for the persistent problem of anastomotic leak and subsequent stricture. The procedure to be described has been designed to lessen these problems.

Similar operative techniques have been described by Duhamel in France,³ Sulamma in Finland⁴ and Berman and Berman in Indianapolis.⁵ Beardmore's report in 1967 revived interest in this technique which offers an alternative to the usual approach of fistula division and end-to-end anastomosis.⁶

PATIENT DATA

In a 30-month period ending October, 1974 14

Mortality from esophageal atresia and tracheoesophageal fistula in infants has shown striking improvement in the past three decades. Persistent problems of anastomotic leak and stricture have prompted modifications in surgical technique designed to lessen these complications. This is a report of ten patients who were treated with ligation-in-continuity of the fistula and end-to-side esophagoesophagotomy. Dr. Bell is Assistant Professor of Surgery (Pediatrics), Washington University School of Medicine and St. Louis Children's Hospital.

patients were treated for esophageal atresia. Thirteen had a Type C anomaly with proximal blind pouch and distal tracheoesophageal fistula. Four patients are excluded from this review: one patient had a two-layer telescoping anastomosis, one patient had multiple anomalies and permission for operation was refused and two infants had distances between the upper and lower portions of the esophagus which precluded primary repair. These two babies underwent upper pouch bouginage and eventual successful end-to-end esophageal anastomosis.

Ten infants were managed surgically by ligation-in-continuity of the fistula and end-to-side esophagoesophagotomy. There were five boys and five girls. All had Type C anomaly. Weight ranged from 1,130 gm to 4,080 gm with a mean of 2,400 gm. Four of the patients weighed less than 2,000 gm. Eight of ten had some degree of pneumonia when admitted. Four patients had concomitant anomalies, including one infant with Down's syndrome and two with congenital heart disease.

All patients underwent gastrostomy on the day of admission. Thoracotomy was carried out after resolution of pneumonia and evaluation of other abnormalities. The average interval from admission to thoracotomy was four days. Two very small infants were treated with intravenous alimentation after gastrostomy for 18 days and 38 days, respectively, to provide adequate nutrition until thoracotomy was performed. Proximal esophageal salivary aspiration was accomplished utilizing a nasoesophageal sump-suction tube during the preoperative preparation of the infant.

SURGICAL TECHNIQUE

The operation is carried out with endotracheal anesthesia. The infant is placed in the left lateral decubitus position. A posterolateral thoracotomy incision is made and the chest is entered retropleurally through the bed of the resected fifth rib. The pleura is dissected from the upper thoracic cavity and the mediastinal structures are exposed. Dissection is facilitated by division of the azygos vein. The distal esophagus is located in the posterior

mediastinum and gently dissected from surrounding tissues to its fistulous connection with the distal trachea. Care must be taken to minimally disturb the blood supply to the distal esophagus. The upper blind esophageal pouch is then located and dissection of the proximal esophagus is carried well into the thoracic inlet to gain maximal mobility and to delineate any accompanying upper fistula.

The tracheoesophageal fistula is then ligated in continuity without division, using a single 0-silk ligature tied snugly around the fistula at its junction with the trachea. Care must be taken not to "tent" the trachea into the ligature with resultant airway compromise. Next, a 2-0 silk suture is placed through the muscle of the distal esophagus just beyond the former ligature and sewn to the muscle of the upper pouch, drawing the two portions of the esophagus together.

The distal esophagus is now opened just beyond the previously described approximating suture for approximately 10 mm and a matching opening is made into the upper pouch at its distal end. Anastomosis is accomplished with full-thickness interrupted 3-0 silk sutures. Four or five sutures suffice on each aspect of the anastomosis, the medial wall having the knots placed within the lumen and the lateral having the knots outside (Fig. 1).

The incision is irrigated. A small Penrose drain is placed close to the anastomosis and brought out through the lateral corner of the wound, which is then closed. No intercostal water-seal drainage is necessary.

POSTOPERATIVE MANAGEMENT

A chest x-ray is obtained in the operating room and the infant is returned to the newborn intensive care unit. Routine postoperative management includes antibiotics, intravenous fluid and venting of the gastrostomy. Pulmonary care includes position changes, humidification and judicious oral suctioning.

Gastrostomy feedings usually are begun on the third postoperative day and oral feedings on the seventh to tenth postoperative day, after which the chest drain is removed.

RESULTS

Follow-up period ranges from eight to 38 months. Postoperative mortality was limited to one infant who weighed 1,130 gm at birth. Parenteral alimentation was carried out for 18 days, at which time she weighed 1,600 gm. Esophageal repair was followed by severe pneumonia, atelectasis and death on the seventh postoperative day. One child

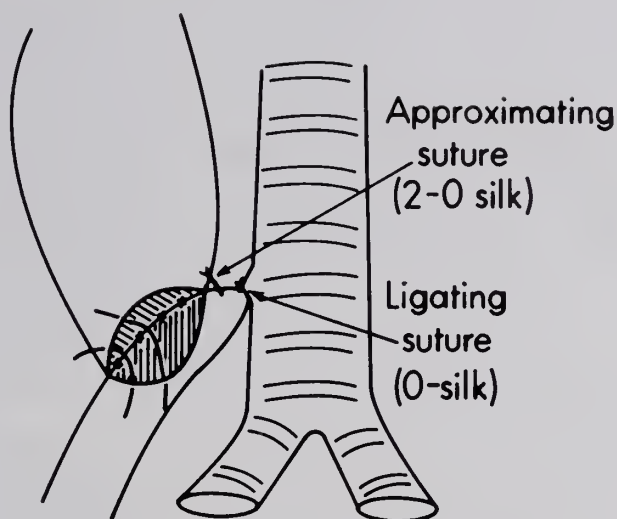


Fig. 1 Ligation-in-continuity of tracheoesophageal fistula and end-to-side esophagoesophagostomy.

died of unrelated causes at the age of five months.

Anastomotic leak occurred in three patients. Leaks were controlled by the presence of the drain placed at operation and closed spontaneously while gastrostomy feedings were carried out. Two of these children required esophageal dilatation several times in the early months of life, but they have been asymptomatic since that time. No other infants have required esophageal dilatation, and all are asymptomatic. No clinical evidence of refistulization has been noted in this group of patients. Five of the eight surviving patients have had esophagrams demonstrating excellent esophageal patency without recurrent fistula.

CONCLUSION

An operative mortality of 10% in this small group of babies with esophageal atresia is similar to other reported series. This emphasizes that because of expanded knowledge of neonatal care, we are able to sustain these infants through surgical procedures for repair of significant structural abnormalities. All eight of the long-term survivors have had good esophageal function, and the need for dilatation has been minimal and limited to the early postoperative months. We believe that the technique of ligation-in-continuity of tracheoesophageal fistula and the end-to-side esophagoesophagostomy has contributed to these results and suggest that continued examination of this technique is warranted.

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(Continued on page 142)

Uses of Radium and Special Methods Of Application in Radiotherapy

Case Reports

THE USE OF RADIUM SOURCES in the treatment of surface tumors in the skin and mucous membrane is an old art in the young specialty of radiation medicine. The rapid radiation fall-off from a radium source or equivalent radioactive material makes it possible to deliver a cancerocidal dose to a circumscribed cancer volume sparing the underlying or adjoining normal structures. Sources commonly used include radium, Co-60 wires with a half-life of five years, iridium wires with a half-life of 74 days, cesium needles or capsules with a half-life of 30 years, radioactive gold seeds with a half-life of 2.7 days and radioactive iodine-125 seeds with a half-life of 60 days. Radium has the advantage of a long half-life of 1,620 years and, therefore, may be repeatedly used without any significant alteration in the radiation output. It has a heterogenous energy ranging from about $\frac{1}{2}$ MeV to 2 MeV which makes it desirable in treatment of surface tumors since it is equivalent to treating the lesion with a combination of orthovoltage and supervoltage x-rays.

The Radiotherapy Department of the Ellis Fischel State Cancer Hospital (EFSC) presently utilizes the low intensity needles, either the full

strength of 0.66 mg of radium/cm of active length or the half-strength of 0.33 mg of radium/cm of active length with a minimum filtration of 0.5 mm of platinum. This type of needle produces a cancerocidal dose at 6,000 rads to 7,000 rads with moderate injury to the surrounding normal tissues, which is reversible. The use of high intensity needles 5 mg to 10 mg of radium per centimeter of active length, as used in intracavitary application, is discouraged since this produces necrosis in the normal tissues in the vicinity of the needles with poor re-epithelization of the treated area.

The use of specially designed radium applicators in some cases offers several advantages when used in combination with conventional external irradiation. These have the advantage of delivering a homogenous dose to an irregular surface. This is difficult to achieve with conventional x-rays without the use of a compensating filter (Fig. 1). Compensating filters are easily constructed but their location is critical and they are easily misaligned with slight change or rotation of the patient's position. The total treatment time required with radium therapy ranges from five to ten days. If external radiation is to be used alone, a cancerocidal dose for a large lesion will have to be fractionated over a period of five to six weeks. In extensive basal cell carcinomas of the maxillo-nasal area, we have found combination therapy most expedient and convenient especially with older patients in whom proper nutrition is essential. External irradiation produces an intra-oral mucositis during and immediately after the course of external radiation, compromising a healthy appetite. The continuous irradiation produced by a constant radium source is theoretically superior to instantaneous, but intermittent, external irradiation in the light of present concepts of radiobiology. Investigations have shown that cell radiosensitivity varies as the cell progresses through the cell replication cycle. The lethal effects of radiation are greatest during the period of mitoses. Cell replication cycles may be described with respect to two

The authors describe the advantages of special methods of application of radium which augment standard external radiation therapy and, thereby, minimize morbidity in selected cases. They also discuss philosophy, dosimetry and detailed construction techniques. Dr. Canoy is Director of Radiotherapy, Dr. Richter is Chief of the Department of Medical Physics and Dr. Guerra is Director of the Department of Maxillofacial Rehabilitation at Ellis Fischel State Cancer Hospital and Cancer Research Center.

This investigation was supported in part by Public Health Service Research Grant CA-08023 from the National Cancer Institute.



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***INDICATIONS.** Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows:

Effective: Management of nausea and vomiting and dizziness associated with motion sickness.

Possibly Effective: Management of vertigo associated with diseases affecting the vestibular system.

Final classification of the less than effective indications requires further investigation.

CONTRAINDICATIONS. Administration of Antivert (meclizine HCl) during pregnancy or to women who may become pregnant is contraindicated in view of the teratogenic effect of the drug in rats.

The administration of meclizine to pregnant rats during the 12-15 day of gestation has produced cleft palate in the offspring. Limited studies using doses of over 100 mg./kg./day in rabbits and 10 mg./kg./day in pigs and monkeys did not show cleft palate. Congeners of meclizine have caused cleft palate in species other than the rat.

Meclizine HCl is contraindicated in individuals who have shown a previous hypersensitivity to it.

WARNINGS. Since drowsiness may, on occasion, occur with use of this drug, patients should be warned of this possibility and cautioned against driving a car or operating dangerous machinery.

Usage in Children: Clinical studies establishing safety and effectiveness in children have not been done; therefore, usage is not recommended in the pediatric age group.

Usage in Pregnancy: See "Contraindications."

ADVERSE REACTIONS. Drowsiness, dry mouth and, on rare occasions, blurred vision have been reported.

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Serum K⁺ and BUN should be checked periodically. (See Warnings Section.)



Before prescribing, see complete prescribing information in SK&F literature or PDR. The following is a brief summary.

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This fixed combination drug is not indicated for initial therapy of edema or hypertension. Edema or hypertension requires therapy titrated to the individual patient. If the fixed combination represents the dosage so determined, its use may be more convenient in patient management. The treatment of hypertension and edema is not static, but must be reevaluated as conditions in each patient warrant.

*** Indications:** *Edema:* That associated with congestive heart failure, cirrhosis of the liver, the nephrotic syndrome; steroid-induced and idiopathic edema; edema resistant to other diuretic therapy. *Mild to moderate hypertension:* Usefulness of the triamterene component is limited to its potassium-sparing effect.

Contraindications: Pre-existing elevated serum potassium. Hypersensitivity to either component. Continued use in progressive renal or hepatic dysfunction or developing hyperkalemia.

Warnings: Do not use dietary potassium supplements or potassium salts unless hypokalemia develops or dietary potassium intake is markedly impaired. Enteric-coated potassium salts may cause small bowel stenosis with or without ulceration. Hyperkalemia (>5.4 mEq/L) has

been reported in 4% of patients under 60 years, in 12% of patients over 60 years, and in less than 8% of patients overall. Rarely, cases have been associated with cardiac irregularities. Accordingly, check serum potassium during therapy, particularly in patients with suspected or confirmed renal insufficiency (e.g., elderly or diabetics). If hyperkalemia develops, substitute a thiazide alone. If spironolactone is used concomitantly with 'Dyazide', check serum potassium frequently—both can cause potassium retention and sometimes hyperkalemia. Two deaths have been reported in patients on such combined therapy (in one, recommended dosage was exceeded; in the other, serum electrolytes were not properly monitored). Observe patients on 'Dyazide' regularly for possible blood dyscrasias, liver damage or other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving Dyrenium (triamterene, SK&F). Rarely, leukopenia, thrombocytopenia, agranulocytosis, and aplastic anemia have been reported with the thiazides. Watch for signs of impending coma in acutely ill cirrhotics. Thiazides are reported to cross the placental barrier and appear in breast milk. This may result in fetal or neonatal hyperbilirubinemia, thrombocytopenia, altered carbohydrate metabolism and possibly other adverse reactions that have occurred in the adult. When used during pregnancy or in women who might bear children, weigh potential benefits against possible hazards to fetus.

Precautions: Do periodic serum electrolyte and

BUN determinations. Do periodic hematologic studies in cirrhotics with splenomegaly. Anti-hypertensive effects may be enhanced in post-sympathectomy patients. The following may occur: hyperuricemia and gout, reversible nitrogen retention, decreasing alkali reserve with possible metabolic acidosis, hyperglycemia and glycosuria (diabetic insulin requirements may be altered), digitalis intoxication (in hypokalemia). Use cautiously in surgical patients. Concomitant use with antihypertensive agents may result in an additive hypotensive effect. 'Dyazide' interferes with fluorescent measurement of quinidine.

Adverse Reactions: Muscle cramps, weakness, dizziness, headache, dry mouth; anaphylaxis; rash, urticaria, photosensitivity, purpura, other dermatological conditions; nausea and vomiting (may indicate electrolyte imbalance), diarrhea, constipation, other gastrointestinal disturbances. Necrotizing vasculitis, paresthesias, icterus, pancreatitis, xanthopsia and, rarely, allergic pneumonitis have occurred with thiazides alone.

Supplied: Bottles of 100 capsules; in Single Unit Packages of 100 (intended for institutional use only).

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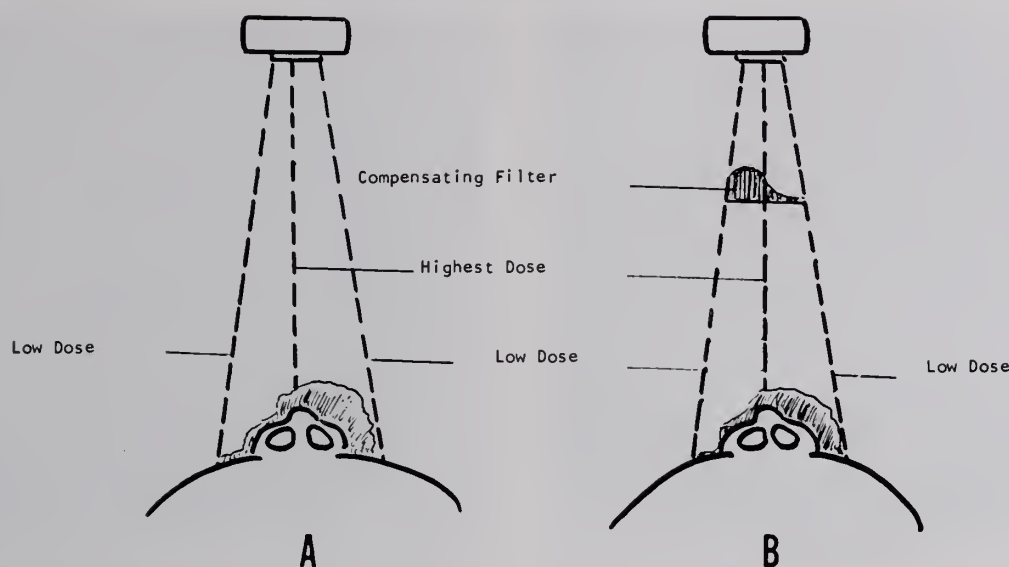


Fig. 1 (A) Uneven distribution of external radiation due to difference of x-ray source to lesion distance and the difference in the thickness of the lesion. (B) The use of a

compensating filter makes the radiation homogeneous, but the placement of the filter is critical.

major events in the cycle: synthesis of sufficient DNA to produce an additional set of chromosomes and the mitotic process itself. This is presented by four cycles: S or DNA synthesis period, M or mitotic period, a G_1 or first gap (growth) period between M and S and a G_2 or second gap (growth) period between S and M.¹ The total time for the three periods varies from ten to 15 hours. With external irradiation where the exposure time varies from two to ten minutes, only the portion of cancer population actively dividing at that time will be adversely affected by the radiation. In a heterogeneous population of cancer cells, continuous irradiation by a radium source will account for more cell hits than instantaneous daily external irradiation (Fig. 2).

DOSIMETRY RADIUM

The relationship of time and dose is the practical basis of dosimetry. The relationship for radium can be easily summarized. The exposure rate at 1 cm from a 1 mg source of radium filtered by 0.5 mm of platinum is 8.25 Roentgens per hour. From the expression exposure, rates at certain distances are easily calculated using the inverse square law assuming a point source. This can be done to estimate dose to personnel at measurable distances, but is not useful at very close distances in body tissues. The concept of milligram-hours has been used for many years in implant and applicator therapy. This is described as the amount of milligrams of radium used multiplied by the time in hours. This produced a desired result that had been derived by experience. It was assumed that the application ge-

ometries were all the same. Practically, this is very difficult to achieve in implants and intracavitary applications, but is achieved relatively easily if custom fabricated applicators are designed.

Our applicators are constructed according to the Paterson-Parker Rules (1934).² The salient features of the rules are the following:

Planar Implants

1. The needles are spaced one centimeter apart with crossing of ends.
2. A ratio of the amount of radium in the periphery and the amount of radium over the total area of the implant varies with size.
3. If the ends of the implants are uncrossed, 10% is deducted from the area for each uncrossed end.

Stages of Cell Replication Cycle

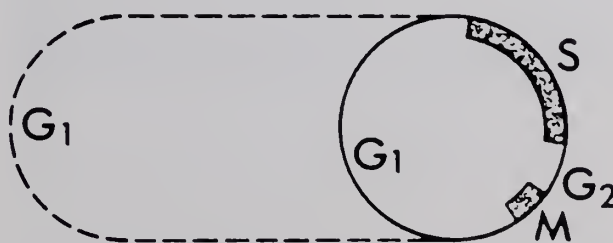


Fig. 2 S = period of DNA synthesis, G_2 = time between completion of S and mitosis, M = mitosis, G_1 = period between end of M and start of S. The figure is drawn to indicate that S, G_2 and M periods are relatively constant, while G_1 may be quite variable. (Reprinted with permission from Suit, H. D.: Basic Principles of Radiotherapy. Radiation Biology: A Basis for Radiotherapy. In Fletcher, G. H. (Ed.), Textbook of Radiotherapy. Philadelphia, Lea and Febiger, 1973, p.82, Fig. 2-7.)

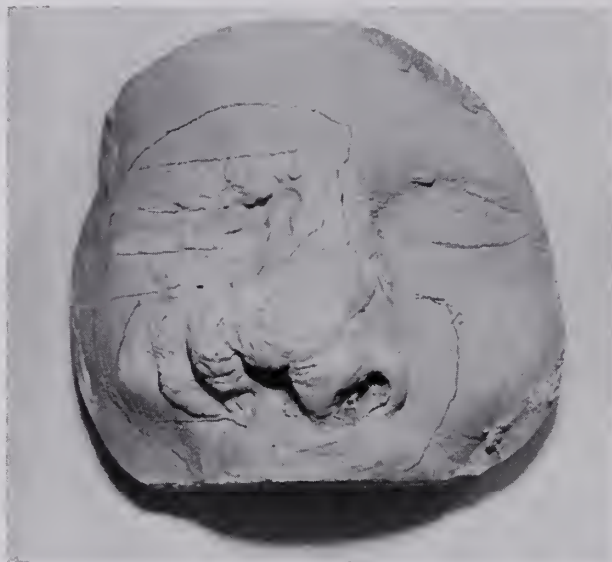


Fig. 3 Dental-stone cast is painted with tinfoil substitute and marked with pencil to delineate extent of peripheries to be treated.



Fig. 4 A 1 cm thick wax spacer is placed on the cast to the limits of the pencil mark and the dummy needles are pressed into it according to the spacing requirements for proper dosimetry. Needles are then injected with silicone. The silicone will allow easy placement and removal after the applicator is reinforced with the methyl methacrylate.



Fig. 5 Autopolymerizing methyl methacrylate is sprinkled over the silicone and wax but the tips of the dummy needles are left exposed. This allows for easy placement and removal of the active radium needles.

Volume implants also have certain placement rules. If the needles are arranged according to these rules, the dose can be calculated from Paterson-Parker Tables. A factor of 0.9 is used to convert Paterson-Parker Roentgens to absorbed dose in rads at various distances. A computer also can be used to calculate applicator designs that do not meet geometric considerations of the Paterson-Parker system. Radiographs are easily made of the mould using dummy needles. The information is loaded in the computer from perpendicular radiographs. The isodose patterns then are printed out to give the dosages at points of interest. All of our applicators are afterloading, so there is no radiation exposure at this stage. The completed and loaded applicator

is securely attached to the patient for the desired time period.

CONSTRUCTION OF RADIUM APPLICATOR

The design objective is to construct a radium applicator which will allow easy placement and removal of radium needles into predetermined locations. Utilizing reversible hydrochloride, an impression is first made of the area to be treated. A cast is then poured in dental stone and painted with tinfoil substitute (Fig. 3). The cast is compared with the patient and a pencil mark is used to delineate the extent of the lesion. A layer of wax 1 cm in thickness is placed over the cast only over the area that is to be treated. Dummy needles are then pushed onto the wax according to the location specified by the radiation therapist. If possible, the needles are placed 1 cm apart and the ends crossed. Silicone impression material is then injected around each needle leaving approximately 5 mm of the dummy needle exposed (Fig. 4). Autopolymerizing methyl methacrylate is then sprinkled over the silicone and wax and is made to go beyond the wax and onto the cast about 1 cm. The tips of the dummy needles are left exposed (Fig. 5). After the methyl methacrylate is cured, color coded lines are painted over the shafts of the needles in order to designate the short and the long needles. This is done to ensure that at loading, the proper needles are placed in the correct locations. A radiograph of the mould is then exposed and any adjustments made in conference with the radiation therapist



Fig. 6 An extensive, ulcerative basal cell carcinoma is seen to be obliterating the left eye and naso-malar areas upon admission.

and the medical physicist.

The silicone surrounding the dummy needles provides an easy release mechanism which holds them securely in a fixed location but allows them to be removed easily by means of a needle holder. This means that during construction of the carrier, no one is subjected to any radiation and the carrier can be loaded with the radioactive needles either immediately before or after it is fixed to the patient. The methyl methacrylate provides rigidity to the structure ensuring that once it is taped on or strapped in place, it delivers a uniform dosage to a predetermined location.

CASE REPORTS

Case # 1. A 92-year-old white woman with a ten-year history of a necrotizing nodular lesion, which developed first on the dorsum of the nose and grew extensively, was referred to the Ellis Fischel State Cancer Hospital. She was seen on admission to have an ulcerative and fungating lesion measuring 5 cm x 6 cm and involving the naso-malar areas, predominantly on the left side. No nodes were palpable and the histological diagnosis was basal cell carcinoma. Diagnostic radiographs did not reveal any involvement of the underlying bone. She came from a nursing home, was slightly cachectic and weighed 80½ lbs. We elected to treat the patient with a radium source supplement utilizing specially designed applicator appliance. While the applicator was being constructed, she was treated with



Fig. 7 Excellent regression of the lesion four weeks after radiotherapy with minimal residual epitheliitis at right naso-malar area.



Fig. 8 The radium applicator is taped to the area to be treated providing fixed placement during the entire course of treatment. Color coded lines indicate location of short or long needles.

x-ray of 1.5 mm Cu HVL to a dose of 1,500 rads in five fractions. Using low intensity needles, the applicator was left in place for 203 hours to a computed dose of 4,263 rads at a depth of 0.5 cm from the surface of the lesion (Figs. 6 and 7). At the completion of therapy, the patient's condition was remarkably improved. The lesion had regressed with minimal effect on the normal tissue and a uniform epitheliitis was evident.

Case # 2. A 64-year-old white woman had a large

basal cell carcinoma in the right shoulder, which had been previously excised, and a skin graft placed elsewhere six weeks prior to her admission to the Ellis Fischel State Cancer Hospital. In the admission conference, she had a necrotizing recurrence at the edge of the graft and patches of nodular recurrences in scattered areas of the graft all of which were histologically proven. The lesion involved the dorsal half of the circumference of the right arm proximally. We elected to treat her initially with Co-60; the lesion bolused and cross-fired with AP and PA fields to attain some radiation homogeneity throughout the lesion. A dose of 5,000 rads was delivered in 20 fractions. To avoid radiation fibrosis in the arm and shoulder from further Co-60 irradiation, the dose was augmented with a radium applicator to a dose of 1,500 rads at a depth of 0.5 cm from the surface of the lesion in 63 hours (Fig. 8). At completion of therapy, there was a uniform epitheliitis and the lesion was flat.

Case # 3. A 97-year-old woman had a large 3 cm x 4 cm fungating lesion in the right forehead and a 2 cm x 3 cm necrotizing lesion in the right naso-malar area. No palpable nodes were located. The lesion in the forehead was histologically diagnosed as an epidermoid carcinoma and the lesion on the nose as a basal cell carcinoma. The fungating part of the lesion in the forehead was electro-excised. While the applicator was being constructed, the lesion in the forehead was treated with 0.5 mm Cu HVL x-ray to a total dose of 3,600 rads in 12 fractions and the lesion in the right naso-malar area to a dose of 3,900 rads in 13 fractions. The dose to each area was augmented with a radium applicator, using full strength needles in the forehead and half-strength needles in the naso-malar area. A dose of 2,700 rads was delivered to the forehead and 1,076

rads to the nose at a depth of 0.5 cm from the surface of the lesion over 90 hours. Simultaneously, the right pre-auricular and adjoining nodes were irradiated with external radiation to a dose of 4,200 rads in 12 fractions using a 6 cm x 6 cm field. Total treatment was delivered in three weeks. At the completion of therapy, the original lesion had regressed and there was a uniform epitheliitis on the forehead and nose.

SUMMARY

Through cooperation of the Department of Medical Physics and the Department of Maxillofacial Rehabilitation, radium applicators have been utilized to augment external radiation treatments in order to reduce morbidity in selected cases. Advantages of specially designed radium applicators are cited. The technique of constructing sophisticated after-loading applicators is described in detail. Radiation dosages and computerized dosimetry, as well as radiation protection and hazards, are discussed. Illustrative cases are presented.

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Reprint Address: Martin J. Bell, M.D.
Div. of Pediatric Surgery
St. Louis Children's Hospital
500b S. Kingshighway
St. Louis, Mo. 63110

Repair of Esophageal Atresia (Continued from page 137)

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In Memoriam

James L. Brown, M.D., 915 N. Grand, St. Louis 63106, a graduate of St. Louis University, 1944; member St. Louis Medical Society; age 57; died Nov. 15, 1975.

John R. Smith, M.D., 1515 Lafayette Blvd., St. Louis 63104, a graduate of Washington University, 1934; member St. Louis Medical Society; age 66; died Jan. 5, 1976.

Arthur W. Koessel, M.D., 640 Lockwood Ct., St. Louis 63119, a graduate of St. Louis University, 1915; member St. Louis County Medical Society; age 85; died Jan. 9, 1976.

Clyde Switzer, M.D., 8100 W. 54th Terr., Overland Park, Kan. 66202, a graduate of Washington University, 1903; member Jackson County Medical Society; age 87; died Jan. 16, 1976.

David F. Gorelick, M.D., 1041 Linwood Terr., Springfield 65804, a graduate of St. Louis University, 1940; member Greene County Medical Society; age 67; died Feb. 7, 1976.

Marshall W. Kelly, M.D., 1916 Greenberry Rd., Jefferson City 65101, a graduate of Washington University, 1936; member Cole County Medical Society; age 65; died Feb. 16, 1976.

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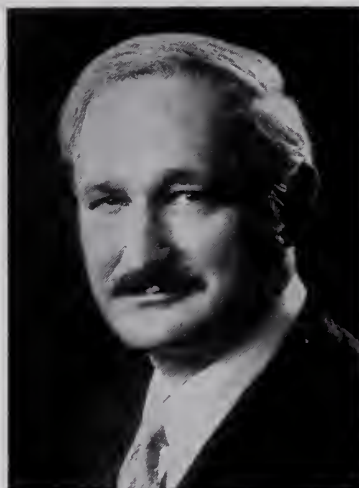
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President's Message

Rather than expend my final President's Page on a recollection of the accomplishments, near-accomplishments, new programs and frustrations experienced during the last year, let me again stress that we must continue to push the present General Assembly to pass corrective legislation in the malpractice insurance area.

Several of the bills we have been supporting from their introduction have been somewhat weakened by amendments. For the economic and legal protection of our patients and, yes, physicians, I urge all MSMA members to again contact their Missouri Senators and Representatives and explain the dire need for the originally proposed bills. The bills have not attained their final language at this stage and we physicians must have our say in the writing of the last drafts.

Personally, I believe that Senate Bill 471, which provides for the establishment of medical malpractice review boards, could go a long way in solving many of the problem areas we experience today. These boards could cut down on the many nuisance suits and, in cases where it is warranted, lead to a fair and equitable settlement without the attending high court costs. To be effective, however, these boards must include proper physician representation, and we must urge our Legislators to establish boards which are fair to the public and to the medical profession.



R. Allen Chandler, M.D.

This is not the time, as some have suggested, to abandon the malpractice package working its way through the General Assembly. To do this would only delay corrective legislation another year. What we must realize is that the bill language will change with nearly every hearing, and we must strive to gain passage of final drafts that attain the purposes originally intended. We cannot expect this package to sail through without amendments because the original bills contained some errors. But, we must support the concepts as proffered at the beginning of the legislative session.

Since the introduction of the malpractice legislative package, I have received many comments, including a certain amount of criticism, concerning the Association's efforts to secure changes in our proposed malpractice laws. I appreciate the comments, both pro and con, but hasten to add that I hope these comments also are being directed to the lawmakers in Jefferson City.

Your Association can do only so much. Your lobbyists can do only so much. The people who will finally decide on the malpractice laws are your Representatives and Senators! Now, show me a politician who is not interested in hearing what a constituent has to say—especially in an Election Year!

So, I invite your opinions on this issue and I look forward to the debate we will have at the 118th Annual Session next month. But while you are airing your thoughts, don't forget to tell the people who do the voting!

All Physicians' Wives Are Invited to Enjoy Special Events in Kansas City

All physicians' wives who accompany their husbands to the MSMA Annual Session in Kansas City are invited to visit the MSMA Auxiliary convention meetings and enjoy special events planned for them.

Mrs. William R. McPhee, President, emphasizes that physicians' wives do not need to be members of the Auxiliary to participate.

Another new innovation at this year's meet-

ing will be the Auxiliary's "Silent Auction" in the Grand Avenue Gallery at Crown Center Hotel. Everyone attending the convention is invited to bid on art and gift items created and donated by Missouri medical families. All profits will be donated to the Missouri State Medical Foundation which provides loans for deserving Missouri medical students.

Following is the schedule of special events:

Thursday, April 1

12:30 PM **Bus Tour** of Kansas City's fine residential areas and historic Jackson County landmarks (\$6.50).

3:00 PM **Needlepoint Mini-Workshop I.** President-Elect's Suite. Designed for experienced workers (no charge).

Friday, April 2

9:00 AM **Needlepoint Mini-Workshop II.** President-Elect's Suite. Basics for beginners (no charge).

11:45 AM Busses to **Tiffany's Attic Dinner Theater.** Luncheon honoring Mrs. Erle R. Wilkinson, President of the AMA Auxiliary, and Mrs. J. Gordon Dees, President of the Southern Medical Woman's Auxiliary (\$8.00).

Play—"6 RMS RIV VU" (Six Rooms With River View). This is the play that was so successful in New York that it was televised nationally with Alan Alda and Carol Burnett in starring roles.

Saturday, April 3

7:30 AM **Public Affairs Breakfast.** Liberty Room. Speaker: Max Parrott, M.D., President of the American Medical Association (\$5.00).

12:30 PM **Luncheon and Installation of Officers.** Liberty Room (\$7.00).

To make your advance reservations, please fill out and forward the reservation form below.

For additional information about the convention and special events, please visit the Auxiliary Registration Desk in the Liberty Room, Crown Center Hotel. The Desk will open at 10 AM on Thursday, April 1.

RESERVATION FORM—MSMA AUXILIARY CONVENTION EVENTS

Please check events you wish to attend:

(Your Name)

(Address)

_____	Thurs., April 1	
_____	Bus tour	\$6.50
_____	Needlepoint mini-workshop	
_____	Fri. April 2	
_____	Needlepoint mini-workshop	
_____	Tiffany's Attic Dinner Theater	\$8.00
_____	Sat., April 3	
_____	Public affairs breakfast	\$5.00
_____	Installation luncheon	\$7.00

Please mail form with your check to "Aux. to J.C.M.S. Convention Fund" to: Mrs. James W. Vaughn, 5509 W. 86th, Shawnee Mission, Kan.



Woman's Auxiliary

WELCOME TO OUR 1976 CONVENTION!

My past two years serving the MSMA Auxiliary as President-Elect and then as President have been years of tremendous learning and growth for me. I can think of few events in my life which have meant as much. As I enter the final month of the 1975-1976 Auxiliary year, however, I must admit to mixed emotions. Perhaps it was those travel schedules that were crowded and in question and the deadlines which seemed to multiply astonishingly that, at times, tended to make it seem like ages ago when my predecessor handed the president's gavel to me.

BUT, THEN . . . when I read the exciting reports which cross my desk, when I think of the magnificent work our members are doing both individually and collectively, when I witness their graciousness and when I listen to your words of encouragement, I know I will pass this mantle of leadership and responsibility to Mrs. George P. (Sue) Wilson with pride and a special sense of treasure. It is from this vantage point that one most clearly gains a true view of our marvelous organization. It is a rare gift, indeed, and I am pleased to have been chosen to share it.

OUR 1976 CONVENTION marks the culmination of our year's efforts. It's a time to evaluate what has been accomplished and garner enthusiasm for the year ahead. It's a time to acknowledge the present and to listen to the promise of the future. This we will do.

IN ADDITION, we have carefully planned this convention to be a time of friendly hospitality and participation by all doctors' wives who attend the 118th Annual Session in Kansas City.

Please examine our schedule of special events on the facing page and share this information with your wife. It contains innovations and represents thoughtful planning for her pleasure and instruction. We invite her to join us for as many or as few events as she chooses. Will you please encourage her to complete the reservation form so that we can expect her?



Mrs. William R. McPhee
President

County Society News

FIRST DISTRICT

COUNCILOR

JOHN N. MARTIN, M.D., ST. JOSEPH

BUCHANAN COUNTY MEDICAL SOCIETY

Robert D. Conn, M.D. of Kansas City, a specialist in cardiovascular diseases, presented the annual "Heart" lecture at the Buchanan County Medical Society meeting on February 4.

A dinner and meeting preceded the program. The heart has been the topic for the February meeting of the Society for many years.

The St. Joseph Heart Council, division of the Missouri Heart Association, arranged for Dr. Conn's appearance in St. Joseph.

Dr. Conn discussed "The Clinical Recognition of Angina Pectoris."

The speaker was introduced by Dr. Robert R. Stuber, program chairman.

President G. Tyson Carpenter presided at the meeting which was attended by 40 physicians.

CARL K. NESS, M.D., *Secretary*

GRAND RIVER MEDICAL SOCIETY

The Grand River Medical Society held its meeting at the Chillicothe Country Club on February 19.

The speaker for the evening was John F. Rose, M.D. of Chillicothe who discussed the evaluation of chest x-rays in heart disease. His presentation was interesting and informative and was followed by an active question-and-answer period.

At the business meeting, Dr. T. N. Cofer of Chillicothe was nominated as a candidate for election to the Kansas City Blue Shield Board of Directors.

Physicians who attended the First District Council meeting in St. Joseph on February 12 reported on that meeting.

Members of the Society began the study of by-laws and plan to revise the model copy sent by the state officers.

Twelve members of the Medical Society and nine members of the Auxiliary attended the meeting. Mrs. Jane Stark was a guest of the Auxiliary.

WILLIAM L. FAIR, M.D., *Secretary*

(Continued on page 152)

BRIEF SUMMARY OF PRESCRIBING INFORMATION ANTIMINTH® (pyrantel pamoate) ORAL SUSPENSION

Actions. Antiminth (pyrantel pamoate) has demonstrated anthelmintic activity against *Enterobius vermicularis* (pinworm) and *Ascaris lumbricoides* (roundworm). The anthelmintic action is probably due to the neuromuscular blocking property of the drug.

Antiminth is partially absorbed after an oral dose. Plasma levels of unchanged drug are low. Peak levels (0.05-0.13 µg/ml) are reached in 1-3 hours. Quantities greater than 50% of administered drug are excreted in feces as the unchanged form, whereas only 7% or less of the dose is found in urine as the unchanged form of the drug and its metabolites.

Indications. For the treatment of ascariasis (roundworm infection) and enterobiasis (pinworm infection).

Warnings. *Usage in Pregnancy:* Reproduction studies have been performed in animals and there was no evidence of propensity for harm to the fetus. The relevance to the human is not known.

There is no experience in pregnant women who have received this drug.

The drug has not been extensively studied in children under two years; therefore, in the treatment of children under the age of two years, the relative benefit/risk should be considered.

Precautions. Minor transient elevations of SGOT have occurred in a small percentage of patients. Therefore, this drug should be used with caution in patients with preexisting liver dysfunction.

Adverse Reactions. The most frequently encountered adverse reactions are related to the gastrointestinal system.

Gastrointestinal and hepatic reactions: anorexia, nausea, vomiting, gastralgia, abdominal cramps, diarrhea and tenesmus, transient elevation of SGOT.

CNS reactions: headache, dizziness, drowsiness, and insomnia. Skin reactions: rashes.

Dosage and Administration. *Children and Adults:* Antiminth Oral Suspension (50 mg of pyrantel base/ml) should be administered in a single dose of 11 mg of pyrantel base per kg of body weight (or 5 mg/lb.); maximum total dose 1 gram. This corresponds to a simplified dosage regimen of 1 ml of Antiminth per 10 lb. of body weight. (One teaspoonful=5 ml.)

Antiminth (pyrantel pamoate) Oral Suspension may be administered without regard to ingestion of food or time of day, and purging is not necessary prior to, during, or after therapy. It may be taken with milk or fruit juices.

How Supplied. Antiminth Oral Suspension is available as a pleasant tasting caramel-flavored suspension which contains the equivalent of 50 mg pyrantel base per ml, supplied in 60 ml bottles and Unitcups™ of 5 ml in packages of 12.

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FINANCIAL STATEMENT FOR THE YEAR 1975

LENNERTSON & COMPANY

CERTIFIED PUBLIC ACCOUNTANTS

ST. LOUIS, MISSOURI 63144

January 28, 1976

Missouri State Medical Association
113 Madison
Jefferson City, Missouri 65101

Gentlemen,

We have examined the balance sheet of Missouri State Medical Association, a non-profit Missouri corporation, as of December 31, 1975, and the related statements of income and reserves and changes in financial position for the year then ended. Our examination was made in accordance with generally accepted auditing standards, and accordingly included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

In our opinion the aforementioned financial statements present fairly the financial position of Missouri State Medical Association at December 31, 1975, and the results of its operations and the changes in its financial position for the year then ended, in conformity with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

Yours very truly,
LENNERTSON AND COMPANY

Missouri State Medical Association Balance Sheet, December 31, 1975

EXHIBIT A

Assets		
<i>Current Assets</i>		
Mercantile Trust Co. (Treasurer's Acct.)	\$ 19,367.56	
Central Missouri Trust Co. (Secretary's Acct.)	578.20	
Petty Cash Fund	25.00	
Certificate of Deposit	125,000.00	
Total Current Assets		\$144,970.76
<i>Investment at Cost (C-2)</i>		
Corporate Bonds	\$ 5,000.00	
Corporation Stocks	77,454.09	
Total (Market Value \$94,936.38)		82,454.09
<i>Accounts Receivable</i>		
Advertisers	\$ 4,741.58	
Others	1,035.92	5,777.50
Dues Receivable—Exhibit D (See Reserve-Contr)		8,055.00
<i>Fixed Assets (At Cost)</i>		
Pledge on Mortgage Payable		
Land	\$ 26,000.00	
Building	118,611.52	
Furniture and Fixtures	20,637.04	
Total	\$165,248.56	
Less Reserve for Depreciation	15,874.33	149,374.23
Advance for Travel Expense		1,508.60
		<u>\$392,140.18</u>

Liabilities		
<i>Current Liabilities</i>		
Supplies and Expenses	\$ 3,481.35	
Due A.M.A.	1,045.00	
Due Mo. State Medical Foundation	265.00	
Total Current Liabilities		\$ 4,791.35
<i>Deferred Credit to Income (Advance Payments)</i>		
Reserve for Uncollected Dues (See Receivable)		4,675.00
Real Estate Mortgage (payable \$647.16 per month including interest due Mercantile Mortgage Co. in 15 years at the rate of 7%)		8,055.00
Reserve for Future Activities—Balance 1-1-75		65,642.40
Depreciation less principal mortgage payment	(2,907.16)	
Improvements to Building	2,180.00	
Excess of Income over Expense—Exhibit B	100,870.33	308,976.43
		<u>\$392,140.18</u>

Missouri State Medical Association Income Statement for the Year 1975

EXHIBIT B

Particulars	General Activities	Journal Publication	Total
Dues Received (including \$3.00 per member annually for the Journal)	\$357,938.00	\$ 12,844.50	\$370,782.50

Rentals—Annual Session Exhibit Space	11,825.00	11,825.00
Annual Session Contributions	1,175.00	1,175.00
Subscriptions to the Journal—Nonmembers		1,104.00
Advertising Space—The Journal	31,611.29	31,611.29
Investments—Interest and Dividends	34,381.15	34,381.15
Collection Fees on A.M.A. Dues	5,959.65	5,959.65
Tour Reimbursement	2,438.40	2,438.40
Reimbursed Fees for Services	6,977.35	6,977.35
Total Income	\$420,694.55	\$ 45,559.79
		<u>\$466,254.34</u>

<i>Expenses</i>			
Salaries	\$135,815.00	\$ 20,099.30	\$155,914.30
The Journal—Paper, Printing, etc.		43,664.46	43,664.46
Cash Discount to Advertisers		20.85	20.85
Commission on Journal Advertising		4,956.08	4,956.08
Commission and Meeting Expense	71,915.27		71,915.27
Custodian Fees—Investments	288.91		288.91
Dues and Subscriptions	882.50		882.50
Employees' Pension Plan Contribution	13,738.37	2,978.32	16,716.69
Equipment Purchases, Rentals, and Repairs in lieu of Depreciation	3,580.68	596.42	4,177.10
Improvements to Building	2,180.00		2,180.00
Insurance—General	1,097.00		1,097.00
Insurance—Blue Cross	2,304.84	449.97	2,754.81
Interest Expense	4,712.01		4,712.01
MMPAC	2,057.03		2,057.03
Mortgage Principal Payments	3,053.91		3,053.91
Occupancy Expense	3,883.17	735.24	4,618.41
Postage	5,023.16		5,023.16
Professional Fees	7,259.87	600.00	7,859.87
Stationery, Printing and Office Supplies	5,698.29		5,698.29
Student Awards	225.00		225.00
Taxes—Payroll	6,655.67	1,173.57	7,829.24
Taxes—Other	500.25		500.25
Taxes—Real Estate	628.57		628.57
Telephone and Telegraph	7,240.29	1,413.55	8,653.84
Traveling Expenses—Executive Secretary and Assistants	9,956.46		9,956.46
Total Expenses	\$288,696.25	\$ 76,687.76	\$365,384.01
Excess of Income or (Expenses)	\$131,998.30	(\$31,127.97)	\$100,870.33

EXHIBIT C-1

Missouri State Medical Association Statement of Commissions and Meeting Expenses for the Year 1975

Annual Session		\$23,690.14
Council		12,910.55
Delegates to A.M.A.		16,069.31
Public Affairs		7,096.18
Woman's Auxiliary		2,953.30
<i>Commissions:</i>		
Commission on Medical Economics, Third Party Medicine, and Governmental Relations	\$ 235.41	
Commission on Continuing Education and Health Manpower	4,878.60	
Commission on Medical-Legal Affairs	3,809.17	
Committee on Interspecialty Medicine	1.20	
Committee on Planning	271.41	9,195.79
Total		<u>\$71,915.27</u>

EXHIBIT C-2

Statement of Investments, December 31, 1975

Description	Bonds at Par	Cost
Pacific Gas & Electric Co., 4½% due 6/1/90	\$5,000.00	\$ 5,000.00
Johns-Manville 200 shares		5,582.34
Central & Southwest Corp. 400 shares		6,345.62
American Home Products Corp. 150 shares		3,006.88
Firestone Tire & Rubber Co. 140 shares		3,771.93
Baker Oil Co. 165 shares		5,940.09
Interco—Common no par 420 shares		12,407.63
J. P. Morgan & Co. 244 shares		5,161.93
International Tele. & Tele. Corp. 100 shares		6,986.25
Bankamerica Corp. 400 shares		13,751.15

Texaco, Inc. 200 shares	6,937.26
International Paper 145 shares	5,563.01
MSMI, Inc. 200 shares	<u>2,000.00</u>
Total	\$82,454.09

EXHIBIT D-1

Missouri State Medical Association
Dues Receivable and Membership by Societies
December 31, 1975

	MEMBERSHIP				Unpaid Dues
	Junior	Active	Honor	Total	
Andrew	3			3	
Audrain	23	1		24	
Barton	3	2		5	
Boone	10	212	7	229	\$1,920.00
Buchanan		93	15	108	200.00
Butler-Wayne-Ripley		49	2	51	375.00
Callaway		15		15	
Cape Girardeau		61	3	64	
Chariton-Macon-Monroe- Randolph		13	5	18	
Clay	1	105	1	107	150.00
Clinton		3	1	4	
Cole		62	4	66	100.00
Cooper		7		7	
Dallas-Hickory-Polk-Dade		9	1	10	100.00
Dunklin		19	1	20	
Franklin-Gasconade-Warren		30	1	31	500.00
Grand River		34	4	38	375.00
Greene		232	14	246	200.00
Henry		5	4	9	
Howard		4		4	
Jackson	15	831	141	987	600.00
Jasper		71	7	78	
Jefferson		19	1	20	
Johnson		15	1	16	
Lafayette-Ray		22		22	
Lewis-Clark-Scotland		1		1	
Marion-Ralls-Shelby		30	1	31	100.00
Mid Missouri		32	1	33	175.00
Miller		1	1	2	
Mineral Area		38	4	42	
Moniteau		3		3	
Montgomery		1		1	
Morgan		6		6	100.00
North Central		2	1	3	
Northwest Mo.		13	1	14	500.00
Ozark		35	5	40	
Pemiscot		10		10	
Perry-St. Genevieve		11	2	13	
Pettis		28	1	29	
Pike		9		9	
Platte		4		4	
St. Charles-Lincoln		68	1	69	100.00
St. Louis City	140	1383	127	1650	2,260.00
St. Louis County	10	480	54	544	
Saline		7	1	8	
Semo	1	34	4	39	
South Central		18		18	100.00
Webster		3		3	
West Central		31	5	36	200.00
Totals	177	4188	425	4790	\$8,055.00

(A)

(A) Delinquent dues of members at December 31, 1975 carried at the request of local Societies. Other delinquent members were dropped from membership in accordance with the by-laws.

MISSOURI STATE MEDICAL FOUNDATION
DECEMBER 31, 1975

LENNERTSON & COMPANY
CERTIFIED PUBLIC ACCOUNTANTS
ST. LOUIS, MISSOURI 63144

January 28, 1976

Missouri State Medical Foundation
113 Madison
Jefferson City, Missouri 65101

Gentlemen,

We have examined the balance sheet of Missouri State Medical Foundation as of December 31, 1975, and the related statements of support, revenue and expenses and changes in fund balances for the year then ended. Our examination was made in accordance with generally accepted auditing standards, and accordingly included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

Missouri State Medical Association
Statement of Source and Application of Funds
for the Year 1975

EXHIBIT E

Funds Acquired	
Excess of income over expenses for year	\$100,870.33
Add Depreciation (non-cash)	<u>5,961.07</u>
Total Funds Acquired	\$106,831.40
Funds Applied	
Purchase of Investments	\$ 2,000.00
Increase in Accounts Receivable	1,982.97
Building Improvements	2,180.00
Travel Advances	287.61
Decrease in Deferred Credit to Income ..	145.00
Principal Mortgage Payments	3,053.91
Adjustments to Reserve	<u>727.16</u>
Total Funds Applied	10,376.65
Balance—Increase in Working Capital	<u>\$ 96,454.75</u>
Accounted for as follows:	
Increase in cash	\$ 8,611.23
Increase in Certificate of Deposit	85,000.00
Decrease in Current Liabilities	<u>2,843.52</u>
Balance—Increase in Working Capital	<u>\$ 96,454.75</u>

Missouri State Medical Association
Notes to Financial Statements
December 31, 1975

1. *Investments.* Permanent investments with a cost of \$82,454.09 and the Certificates of Deposit were confirmed by a statement from the custodian, Mercantile Trust Company.

Investment income for the year was as follows:

Interest—Certificate of Deposit	\$14,536.22
Interest—Corporate Bond	225.00
Dividends on Stock	<u>19,619.93</u>
Total Investment Income	<u>\$34,381.15</u>

2. *Building, Equipment, and Depreciation.* The building occupied by the Association with a cost of \$118,611.52 will be depreciated over a useful life of 30 years and the furniture and fixtures in the amount of \$20,637.04 has a 10 year useful life. Yearly depreciation will not be included as an expense, but depreciation less principal mortgage payments, will be recorded as a reduction to "Reserve for Future Activities."

Purchases of small equipment, rentals and repairs for the year in the sum of \$4,177.10 were charged to expense in lieu of depreciation.

Building additions in the amount of \$2,180.00 are included in Exhibit B as expenses. However, these additions are also included in Fixed Assets and the cost will be recorded as an increase to "Reserve for Future Activities."

3. *Dues and Assessments.* Membership dues and assessments are taken into income on a cash receipt basis whereas all other accounts are maintained on the accrued basis. The following are the dues and assessments for each member in effect during the year 1975.

	Active	Junior
Journal	\$ 3.00	\$ 3.00
Association General Fund	87.00	7.00
Foundation Assessment	<u>10.00</u>	
Missouri State Medical Assn. Dues & Assessments	\$100.00	\$10.00
American Medical Association	110.00	20.00
Totals	<u>\$210.00</u>	<u>\$30.00</u>

4. *Income Taxes* The Internal Revenue Service requires that the Association pay taxes on its unrelated business income. For the year ended December 31, 1975 the Association is liable for Federal and State Income Taxes in the amount of \$500.25.

In our opinion, the aforementioned statements present fairly the assets and liabilities of Missouri State Medical Foundation at December 31, 1975, arising from cash transactions, and the revenues collected and expenditures made by it during the year ended, on a basis consistent with that of the preceding year.

Yours very truly,
LENNERTSON & COMPANY

EXHIBIT A

Missouri State Medical Foundation
Balance Sheet (Cash Basis), December 31, 1975

Assets

Cash	
Checking Account	\$ 46,798.51
Savings Account #05842586	49,500.15
Total Cash	\$ 96,298.66
Loans Receivable from Medical Students ..	\$567,407.85
Less Reserve for Losses	<u>9,252.34</u>
	<u>\$654,454.17</u>

(Continued on next page)

Fund Reserve

Balance January 1, 1975	\$608,755.71
Additions for the Year 1975	
Interest on Student Loans	\$ 11,508.70
Interest on Bank Deposits	2,413.94
Contributions (detailed below)	2,240.00
Assessment of Members, Active \$10.00 ..	41,030.00
	<u>57,192.64</u>
	\$665,948.35

Less Expenses for the Year 1975

Administrative Services	\$ 6,600.00
Professional Fees	940.00
Printing, Meeting & Misc. Expense	583.55
Provision for Losses on Student Loans ...	3,370.63
	<u>11,494.18</u>
	<u>\$654,454.17</u>

Contributions

Miller's Medical Arts Pharmacy, Inc., Boonville, Mo.	\$ 100.00
Boonville Medical Group, Boonville, Mo.	100.00
Max S. Franklin, M.D., St. Louis, Mo.	100.00
Woman's Auxiliary to Mo. State Medical Assn.	800.00

Woman's Auxiliary to Jackson County Med. Soc., Kansas City, Mo.	100.00
Doyle C. McCraw, M.D., Bolivar, Mo.	100.00
Sub Total	<u>\$1,300.00</u>
Contributions under \$100 each	940.00
Total Contributions	<u>\$2,240.00</u>

Missouri State Medical Foundation**Notes to Financial Statements****December 31, 1975**

1. *Income.* Accrued interest on outstanding loans at December 31, 1975 amounted to \$37,720.84 and is not included in the loan balances in Exhibit A.

2. *Student Loans.* Summary of Loans Receivable.

Loans Receivable January 1, 1975	\$522,579.83
Loans made during the year	90,250.00
	<u>\$612,829.83</u>
Less Loan Repayments	45,421.98
Loans Receivable December 31, 1975	<u>\$567,407.85</u>

County Society News

*(Continued from page 148)***EIGHTH DISTRICT****COUNCILOR**

HOWARD J. McALHANY, M.D.,
SPRINGFIELD

OZARK MEDICAL SOCIETY

Dr. F. R. Esparrago of Monett was reelected President of the Ozark Medical Society at the meeting held in his home on January 13.

Also reelected were Dr. Richard Betz of Neosho, Vice-President and Dr. Andres Apostol of Monett, Secretary-Treasurer.

Guest speaker for the meeting was Dr. Peter Alcantia, director of the Radiation Therapy Department at Cox Medical Center in Springfield.

Members from Monett, Cassville, Aurora, Mt. Vernon and Branson attended the dinner and meeting.

New Members

Colita R. Banez, M.D., 5400 Arsenal, St. Louis 63139, has become a member of St. Louis Medical Society. Dr. Banez is a native of the Philippines, received her preliminary education at the University of Santo Tomas and her M.D. degree at the University of Santo Tomas in 1967. She specializes in pediatrics and psychiatry.

Michael Cooperstock, M.D., 807 Stadium, Columbia 65201, has become a member of Boone County Medical Society. Dr. Cooperstock is a native of Marquette, Mich., received his preliminary education at Yale University and his M.D. degree at the University of Michigan in 1968. He specializes in pediatric infectious diseases.

Bela Denes, M.D., Rt. 3, Box 220, Highridge 63049, has become a member of St. Louis Medical Society. Dr. Denes is a native of Hungary, received his preliminary education at Washington University and his M.D. degree at Washington University in 1973. He specializes in urology.

John F. Evans, M.D., 1515 W. Truman Rd.,

Independence 64050, has become a member of Jackson County Medical Society. Dr. Evans is a native of St. Louis, received his preliminary education at Iowa State University and his M.D. degree at the University of Missouri-Columbia in 1970. He is in family practice.

John V. Forrest, M.D., 510 S. Kingshighway, St. Louis 63110, has become a member of St. Louis Medical Society. Dr. Forrest is a native of Massachusetts, received his preliminary education at the University of Notre Dame and his M.D. degree at SUNY Downstate Medical School in 1966. He specializes in radiology.

Kenneth L. Goetz, M.D., St. Luke's Hospital, Kansas City 64111, has become a member of Jackson County Medical Society. Dr. Goetz is a native of Java, S. C., received his preliminary education at the University of Wisconsin and his M.D. degree at the University of Kansas in 1967. He specializes in cardiovascular research.

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CLASSIFIED ADS

OB-GYN—To join Board Certified OB-GYN in a small town in Missouri near large city. Salary first year \$45,000 (inclusive of Mal-Practice and Benefits) with early Partnership. Write to Box 411, Missouri State Medical Association, P.O. Box 1028, Jefferson City, Mo. 65101.

POSITION FOR X-RAY TECHNICIAN—Six-man multi-specialty office, mid-state, 40 hours or less per week, salary, fringe benefits. Call or write D. Hata, M.D., 329 Main St., Boonville, Mo. 65233. Phone (816) 882-6612.

PHYSICIAN WANTED—Family Practitioner to add to qualitative care presently provided by four Family Practitioners, OB-Gyn Specialist and General Surgeon. Professional corporation is present practice structure. Salary commensurate with ability to produce. Exceptional fringe benefits available. Quiet suburban community, approximately 30 minutes from Kansas City, Missouri. Contact Herbert A. Dempsey, M.D., 816-524-3799 or 615 W. Third St., Lee's Summit, Missouri 64063.

INTERNIST & FAMILY PRACTITIONER—To join 11-man multi-specialty group; city of 20,000 with a population draw of 60,000. Incorporated, offering excellent salary, fringe benefits and retirement plan. Liberal vacation and study policy. Opportunity to pursue special interest in this practice setting. Clinic presently expanding facilities and is in proximity of Hannibal's two accredited hospitals. Mark Twain's home town is an ideal place to raise a family. Call or write: Wyeth Hamlin, M.D., LaMoine Rapp, M.D. or Dale J. Anderson, Administrator, at (314) 221-5250, The Hannibal Clinic, Inc., 711 Grand Ave., Hannibal, Missouri 63401.

EMERGENCY MEDICINE: Career opportunities available in E.D. medicine. Also short-term and locum tenens. Locations in St. Louis, Cape Girardeau and Jefferson City. Flexible work schedules, competitive remuneration, paid malpractice, vacation, educational leave, interview expenses. Missouri locations, call collect 314-727-1213 or out-of-state call toll-free 1-800-325-3982.

PSYCHIATRISTS AND GENERAL PRACTITIONERS WANTED—Salary based on experience, qualifications and boards, 40-hour week, liberal vacation, holiday and sick leave. Paid state retirement and life insurance. Large mental hospital in small city with good schools, churches and two Liberal Arts colleges. Close to University and Metropolitan area. Contact Richard Jacks, D.O., Superintendent, Fulton State Hospital, Fulton, Missouri. Phone: (314) 642-3311.

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All advertisements are subject to approval by the Editorial Board prior to acceptance.

118th ANNUAL SESSION — April 1-4, 1976 — Kansas City

Missouri Medicine in Review



FORTY YEARS AGO

The 79th Annual Session of the Missouri State Medical Association will be held in Columbia on April 13-15. All general sessions will be held in the ballroom on the mezzanine floor of Hotel Tiger. The date of the 1936 Annual Session is approximately one month earlier than usual and the Session will convene for only three days instead of the customary four days. The date was selected because the AMA Session will be held in Kansas City on May 11-15.

We inquired into the use of the vaccine recommended by Sauer for the last ten years. During this period, the mortality rate for whooping cough in Missouri varied between 2.62 and 9.31 per 100,000 population. During this three year period (1932-1934), between 75% and 82% of all deaths from whooping cough occurred before the second birthday. The Sauer vaccine should not be given earlier than the seventh month of life and does not produce immunity for four months thereafter, i.e., until almost the first birthday.

The staff of DePaul Hospital in St. Louis is to be commended on an action which is unusual in the history of organized medicine. At a December meeting of the staff, a junior membership in the St. Louis Medical Society was presented to each intern connected with DePaul Hospital.

TWENTY-FIVE YEARS AGO

Herbert L. Mantz, M.D., Kansas City, has been appointed chief consultant in tuberculosis for the United States Veterans Administration.

H. E. Erni, M.D., Macon, spoke on "Medical Needs of the United States Today and in the Future" at a meeting of the Macon Rotary Club.

Richard L. Sutton, Sr., M.D. of McAllen, Tex., an honor member of the Jackson County Medical Society, has been elected a corresponding member of the Swedish Dermatological Society.

Amusing Quotations for Doctors and Patients, edited by Noah D. Fabricant, M.D., Grune and Stratton, Inc., New York, 1950. Price, \$3.—This volume of 132 pages of more than 1,000 quotations from many authors is well indexed by author and subject. As the title states, the quotations are amusing. Many are delightfully so. It is the sort of volume to yield pleasure for many passing moments rather than to be devoured en masse. The quotations are from the Ancients as well as the Moderns. They contain much truth, some untruth said in jest and just enough nonsense to make one wonder how foolish man can be.

TEN YEARS AGO

Vernon E. Wilson, M.D., Columbia, dean and director of the University of Missouri Medical Center, writes the following:

"The academic year of 1965-1966 may well prove to be one of the most significant periods in the history of the four-year School of Medicine. With the Medical Center looking toward its tenth anniversary this fall, programs planned in the past are reaching fruition, and future needs are fast becoming apparent and urgent. This was the first year in which the new curriculum was in effect for the entire student body, giving students increased freedom in selecting programs tailor-made to their needs, interest and potential. The new program provided students with an opportunity to take elective work on an international basis, to supplement facilities of the Medical Center and its affiliated institutions."

The Annual Banquet and Installation of Officers of Greene County Medical Society was held on January 28, 1966 in Ozark, Mo. A short formal program included remarks by retiring President William H. Snead and the incoming President William F. Johnson.

The Grand River Medical Society and Auxiliary met in the Strand Hotel in Chillicothe on February 10. Guests were Dr. Briennen, Chillicothe; Dr. Charles Gilliland, Cameron; Mr. Marvin Platz, Carrollton; and Dr. John Martin of St. Joseph.

LIBRIUM[®]

(chlordiazepoxide HCl)

FOR ALL THE RIGHT REASONS.

- prompt and specific action
- documented benefit-to-risk ratio
- three dosage strengths to meet most therapeutic needs



Before prescribing, please consult complete product information, a summary of which follows:

Indications: Relief of anxiety and tension occurring alone or accompanying various disease states.

Contraindications: Patients with known hypersensitivity to the drug.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. As with all CNS-acting drugs, caution patients against hazardous occupations requiring complete mental

alertness (e.g., operating machinery, driving). Though physical and psychological dependence have rarely been reported on recommended doses, use caution in administering to addiction-prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions), following discontinuation of the drug and similar to those seen with barbiturates, have been reported. Use of any drug in pregnancy, lactation or in women of child-bearing age requires that its potential benefits be weighed against its possible hazards.

Precautions: In the elderly and debilitated, and in children over six, limit to smallest effective dosage (initially 10 mg or less per day) to preclude ataxia or oversedation, increasing gradually as needed and tolerated. Not recommended in children under six. Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider individual pharmacologic effects, particularly in use of potentiating drugs such as MAO inhibitors and phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions (e.g., excitement, stimulation and acute rage) have been reported in psychiatric patients and hyperactive aggressive children. Employ usual precautions in treatment of anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation have been reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship has not been established clinically.

Adverse Reactions: Drowsiness, ataxia and confusion may occur, especially in the elderly and debilitated. These are reversible in most instances by proper dosage adjustment, but are also occasionally observed at the lower dosage ranges. In a few instances syncope has been reported. Also encountered are isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent and generally controlled with dosage reduction; changes in EEG patterns (low-voltage fast activity) may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice and hepatic dysfunction have been reported occasionally, making periodic blood counts and liver function tests advisable during protracted therapy.

Usual Daily Dosage: Individualize for maximum beneficial effects. *Oral—Adults:* Mild and moderate anxiety and tension, 5 or 10 mg *t.i.d.* or *q.i.d.*; severe states, 20 or 25 mg *t.i.d.* or *q.i.d.* *Geriatric patients:* 5 mg *b.i.d.* to *q.i.d.* (See Precautions.)

Supplied: Librium[®] (chlordiazepoxide HCl) *Capsules*, 5 mg, 10 mg and 25 mg—bottles of 100 and 500; Tel-E-Dose[®] packages of 100, available in trays of 4 reverse-numbered boxes of 25, and in boxes containing 10 strips of 10; Prescription Paks of 50, available singly and in trays of 10. Libritabs[®] (chlordiazepoxide) *Tablets*, 5 mg, 10 mg and 25 mg—bottles of 100 and 500. With respect to clinical activity, capsules and tablets are indistinguishable.



Roche Laboratories
Division of Hoffmann-La Roche Inc.
Nutley, New Jersey 07110

LIBRIUM[®]

chlordiazepoxide HCl/Roche
5mg, 10mg, 25mg capsules

Please see following page.

LIBRIUM[®] **(chlordiazepoxide HCl)**

FOR ALL THE RIGHT REASONS.

Yesterday's decision to use Librium for a clinically anxious patient was based on several good reasons. Safety. Effectiveness. Versatility. And the reasons you chose it yesterday are as valid today.

Librium has accumulated an unsurpassed clinical record. A record validated in several thousand papers published both here and abroad.

Librium, when used in proper dosage, rarely interferes with a patient's mental acuity or ability to perform. However, as with all CNS-acting agents, good medical practice suggests that patients be cautioned against hazardous activities requiring complete mental alertness.

Librium has an established safety record and a documented benefit-to-risk ratio. And Librium is used concomitantly with such drugs as cardiac glycosides, diuretics, anticholinergics and antacids.

So when you consider antianxiety therapy, consider Librium. It's a good choice. For today. And tomorrow.



PROVEN ADJUNCT FOR CLINICAL ANXIETY

LIBRIUM[®] 
chlordiazepoxide HCl/Roche

Please see preceding page for summary of product information.

Missouri Medicine

JOURNAL OF THE MISSOURI STATE MEDICAL ASSOCIATION



APRIL, 1976

VOLUME 73, NUMBER 4

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University of Missouri-Columbia Medical Center
SPECIAL ISSUE

Both after



Predominant
psychoneurotic
anxiety

Associated
depressive
symptoms

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Tension and anxiety states; somatic complaints which are concomitants of emotional factors; psychoneurotic states manifested by tension, anxiety, apprehension, fatigue, depressive symptoms or agitation; symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in skeletal muscle spasm due to reflex spasm to local pathology, spasticity caused by upper motor

neuron disorders, athetosis, stiff-man syndrome, convulsive disorders (not for sole therapy).

Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma; may be used in patients with open angle glaucoma who are receiving appropriate therapy.

Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive dis-

orders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard convulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms (similar to those with barbiturates and alcohol) may occur following abrupt discontinuation (convulsions, tremor, abdominal and muscle cramps, vomiting and sweating). Be cautious in addiction-prone individuals under careful

respond to one

According to her major symptoms, she is a psychoneurotic patient with severe anxiety. But according to the description she gives of her feelings, part of the problem may sound like depression. It is because her problem, although primarily one of excessive anxiety, is often accompanied by depressive symptomatology. Valium (diazepam) can provide relief for both—the excessive anxiety is relieved, the depressive symptoms associated with it are also relieved.

There are other advantages in using Valium for the management of psychoneurotic anxiety with secondary depressive symptoms: the psychotherapeutic effect of Valium is pronounced and rapid. This means that improvement is usually apparent

in the patient within a few days rather than in a week or two, although it may take longer in some patients. In addition, Valium (diazepam) is generally well tolerated; as with most CNS-acting agents, caution patients against hazardous occupations requiring complete mental alertness.

Also, because the psychoneurotic patient's symptoms are often intensified at bedtime, Valium can offer an additional benefit. An *h.s.* dose added to the *b.i.d.* or *t.i.d.* treatment regimen can relieve the excessive anxiety and associated depressive symptoms and thus encourage a more restful night's sleep.



Valium[®] (diazepam) [Ⓢ]

2-mg, 5-mg, 10-mg scored tablets

in psychoneurotic
anxiety states
with associated
depressive symptoms

surveillance because of their predisposition to habituation and dependence. In pregnancy, lactation or women of child-bearing age, weigh potential benefit against possible hazard.

Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies.

Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle

spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.



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Missouri Medicine

THE JOURNAL OF THE MISSOURI STATE MEDICAL ASSOCIATION

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Testing in Humans: Who, Where & When.

The weight of ethical opinion:

Few would disagree that the effectiveness and safety of any therapeutic agent or device must be determined through clinical research.

But now the *practice* of clinical research is under appraisal by Congress, the press and the general public. Who shall administer it? On whom are the products to be tested? Under what circumstances? And how shall results be evaluated and sized?

The Pharmaceutical Manufacturers Association represents firms that are significantly engaged in the discovery and development of new medicines, medical devices and diagnostic products. Clinical research is essential to their efforts. Consequently, PMA formulated positions which it submitted on July 11, 1975, to the Subcommittee on Health of the Senate Labor and Public Welfare Committee, its official policy recommendations. These are the essentials of PMA's current thinking in this vital area.

1. PMA supports the mandate and mission of the National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research and urges to establish a special committee composed of experts of appropriate disciplines familiar with the industry's research methodology to volunteer its advice to the Commission.

2. PMA supports the formation of an independent, expert, broadly based and representative panel to assess the current state of drug innovation and the impact on it of existing laws, regulations and procedures.

3. When FDA proposes regulations, it should prepare and publish in the *Federal Register* a detailed statement assessing the impact of those regulations on drug and device innovation.

4. PMA proposes that an appropriately qualified medical organization be encouraged to undertake a comprehensive study of the optimum roles and responsibilities of the sponsor and physician when company-sponsored clinical research is performed by independent clinical investigators.

5. PMA recognizes that the physician-investigator has, and should have, the ultimate responsibility for deciding the substance and form of the informed consent to be obtained. However, PMA recommends that the sponsor of the experiment aid the investigator in discharging this important responsibility by providing (1) a document detailing the investigator's responsibilities under FDA regulations with regard to patient consent, and (2) a written description of the relevant facts about the investigational item to be studied, in comprehensible lay language.

6. In the case of children, the sponsor must require that informed consent be obtained from a legally appropriate representative of the participant. Voluntary consent of an older child, who may be capable of understanding, in addition to that of a parent, guardian or other legally responsible person, is advisable. Safety of the drug or device shall have been assessed in adult populations prior to use in children.

7. PMA endorses the general principle that, in the case of the mentally infirm, consent should be sought from both an understanding subject and from a parent or guardian, or in their absence, another legally responsible person.

8. Pharmaceutical manufacturers sponsoring investigations in prisons must take all reasonable care to assure that the facilities and personnel used in the conduct of the investigations are suitable for the protection of participants, and for the avoidance of coercion, with a respect for basic humanitarian principles.

9. Sponsors intending to conduct non-therapeutic clinical trials through the participation of employee volunteers should expand the membership and scope of its existing Medical Research Committee, or establish such an internal Medical Research Committee, with responsibility to approve the consent forms of all volunteers, designs, protocols and the scope of the trial. The Committee should also bear responsibility to ensure full compliance with all procedures intended to protect employee volunteers' rights.

10. Where the sponsor obtains medical information or data on individuals, it shall be accorded the same confidential

status as provided in codes of ethics governing health care professionals.

11. PMA and its member firms accept responsibility to aid and encourage appropriate follow-up of human subjects who have received investigational products that cause latent toxicity in animals or, during their use in clinical investigation, are found to cause unexpected and serious adverse effects.

12. PMA supports the exploration and development by its member companies of more systematic surveillance procedures for newly marketed products.

13. When a pharmaceutical manufacturer concludes, on the basis of early clinical trials of a basic new agent, that a new drug application is likely to be submitted, a proposed development plan accompanied by a summary of existing data, would be submitted to the FDA. Following a review of this submission, the FDA, and its Advisory Committee where appropriate, would meet with the sponsor to discuss the development plan. No *formal* FDA approval should be required at this stage. Rather, the emphasis should be on identification of potential problems and questions for the sponsor's further study and resolution as the program develops.

The PMA believes that health professionals as well as the public at large should be made aware of these 13 points in its Policy on Clinical Research. For these recommendations envisage constructive, cooperative action by industry, research institutions, the health professions and government to encourage creative and workable responses to issues involved in the clinical investigation of new products.



Pharmaceutical Manufacturers Association
1155 Fifteenth Street, N.W.
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Famous Fighters



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Bare-knuckles heavyweight champion
1882-1892

NEOSPORIN® Ointment (polymyxin B-bacitracin-neomycin) is a famous fighter, too.

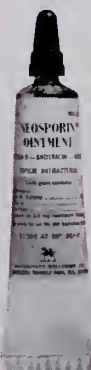
Provides overlapping, broad-spectrum antibacterial action to help combat infection caused by common susceptible pathogens (including staph and strep).

Each gram contains: Aerosporin® brand Polymyxin B Sulfate 5,000 units; zinc bacitracin 400 units; neomycin sulfate 5 mg (equivalent to 3.5 mg neomycin base); special white petrolatum qs in tubes of 1 oz and 1/2 oz and 1/32 oz (approx.) foil packets.

INDICATIONS: Therapeutically (as an adjunct to systemic therapy when indicated) for topical infections, primary or secondary, due to susceptible organisms, as in: • infected burns, skin grafts, surgical incisions, otitis externa • primary pyodermas (impetigo, ecthyma, sycosis vulgaris, paronychia) • secondarily infected dermatoses (eczema, herpes, and seborrheic dermatitis) • traumatic lesions, inflamed or suppurating as a result of bacterial infection.

Prophylactically, the ointment may be used to prevent bacterial contamination in burns, skin grafts, incisions, and other clean lesions. For abrasions, minor cuts and wounds accidentally incurred, its use may prevent the development of infection and permit wound healing. **CONTRAINDICATIONS:** Not for use in the eyes or external ear canal if the eardrum is perforated. This product is contraindicated in those individuals who have shown hypersensitivity to any of the components.

WARNING: Because of the potential hazard of nephrotoxicity and ototoxicity due to



neomycin, care should be exercised when using this product in treating extensive burns, trophic ulceration and other extensive conditions where absorption of neomycin is possible. In burns where more than 20 percent of the body surface is affected, especially if the patient has impaired renal function or is receiving other aminoglycoside antibiotics concurrently, not more than one application a day is recommended. **PRECAUTIONS:** As with other antibacterial preparations, prolonged use may result in overgrowth of nonsusceptible organisms, including fungi. Appropriate measures should be taken if this occurs. **ADVERSE REACTION:** Neomycin is a not uncommon cutaneous sensitizer. Articles in the current literature indicate an increase in the prevalence of persons allergic to neomycin. Ototoxicity and nephrotoxicity have been reported (see Warning section).

Complete literature available on request from Professional Services Dept. PML.



Burroughs Wellcome Co.
Research Triangle Park
North Carolina 27709

MSMA



NEWS ROUND - UP

April, 1976

Congressional District races in November

The Fall elections this year have taken on added impact with the announcements that one U.S. Senator and five U.S. Representatives will not seek their present offices. On the map at the right, new Congressmen will be elected from Districts 2, 3, 4, 6 and 9.



'76 could be big politically for physicians

What can I do about the way they are running the government? This is a question that is often repeated by physicians as well as people from all fields of life.

Well, 1976 is a year when there IS something you can do about the way they run the government.

Exactly one-half (6-of-12) of Missouri's Congressional Delegation has indicated they will not run for re-election. That means Missouri will have one of its largest Congressional turnovers in many years.

Those who will not run for re-election are Sen. Stuart Symington, St. Louis; Rep. Leonor Sullivan, St. Louis; Rep. William Randall, Independence; and Rep. William Hungate, Troy. Two other Representatives — James Symington of Clayton, and Jerry Litton of Chillicothe — are pitted against each other in a three-way race for the Democratic nomination for Senator.

The possible changes on the State level are nearly as significant. Along with the Governor's race, one-half of the State Senate is up for election as well as all of the members of the State House of Representatives.

Of the 17 State Senators who face re-election, six have already indicated they will not run and five others have not reached a final decision. It has been estimated that perhaps 60 to 70 new members of the State House will be elected in November.

With this large turnover of elected officials on both the State and Federal levels, the medical profession is bound to lose some of its strong supporters from previous years. In addition, some of the profession's opponents will not return.

But NOW is the time for physicians across the state to gain input with the candidates in their areas. Effective support now will insure that the candidate, if elected, will remember that physicians are backing his campaign from the start and were willing to give of their time and money to aid his election.

One of the most important contributions a candidate can receive is volunteer work. Physicians often say they are too busy to get involved in political campaigns but those same physicians find plenty of time to participate in several other forms of community or civic affairs. An election, incidentally, represents the peak of community activities.

While considering volunteer work, remember that many Medical Society Auxiliary members are vitally interested in the political scene and, at the request of the local Medical Society, could form a "support committee" to work for a candidate. Also, a physician's wife, children or office personnel are good sources of volunteer help.

The important thing is that a candidate should be made to realize that the medical community is interested in his campaign and will assist his efforts.

Another effective way of obtaining input into politics — See "Elections," Next Page

Malpractice measures progress

As the Missouri General Assembly heads into its last month of deliberations this Session, the several bills dealing with the malpractice insurance crisis are awaiting final action.

The three Senate malpractice bills, SB 470, SB 471 and SB 472, have been passed by the Senate and heard by the House Public Health Committee. The bills, if approved by the House Committee, must then go to the floor of the House for debate.

SB 470 extends the "two years from the act" Statute of Limitations to minors over the age of six. It changes the Statute to "two years from discovery," but never more than 10 years, in the case of foreign objects negligently left in the body.

SB 471 would establish a system of review panels to hear malpractice suits before they go to court. The panel would be composed of two physicians, two lawyers, one layman and a non-voting circuit judge.

SB 472 expands the existing list of activity specifically defined to be "unprofessional and dishonorable" by physicians as it relates to licensing. In effect, it strengthens the powers of the Board of Healing Arts.

The package of five malpractice bills in the House have been recommended Do Pass by the House Public Health Committee and should have been debated on the House floor by the time this report is published. Briefly, the bills and their purposes are:

- HB 1307 eliminated the ad damnum clause in malpractice suits. That means the suit could not ask for a specific amount of money, but rather "fair and reasonable" compensation.

- HB 1308 requires insurance companies to report all malpractice suits to the Division of Insurance so that statistics on the malpractice situation in Missouri can be determined.

- HB 1309 gives the state the power to set up a Joint Underwriting Association to insure physicians if all other availability disappears.

- HB 1312 provides that other sources of payment (insurance, Medicare, workman's compensation, etc.) would be admissible evidence in malpractice suits.

- HB 1447 would set a sliding scale on attorney contingent fees in malpractice cases.

Another bill of wide interest to physicians, SB 682, which would have established a "Certificate-of-Need" law in Missouri, was killed on the Senate floor. This bill would have required medical entities to obtain state approval before constructing new or improved facilities costing more than \$100,000.

The Acupuncture bill, HB 975, which in past Sessions has shown signs of gaining approval, has been bottled up in committee this Session.

Next month's News Report will contain a wrap-up of all health-related bills passed by the General Assembly.

Elections

Continued

cal campaigns is by contributing to the Missouri Medical Political Action Committee (MMPAC).

MMPAC is a bipartisan committee set up to assist the campaigns of candidates who have shown a willingness to listen to medicine's point of view. The money which MMPAC and AMPAC gives to candidates does not buy votes, but it does let the candidates know that the medical profession is supportive.

Approximately one-third of the members of MSMA have been carrying the load for the political action work in Missouri. If more MSMA members became active in MMPAC, the funds available to political campaigns would increase proportionately and more candidates could receive donations. The medical profession cannot hope to match the large unions and other large organizations in political funds, but Missouri doctors could vastly improve the present status.

Membership in MMPAC (which includes AMPAC membership) is \$25 for MSMA members and \$15 for Auxiliary members. A Sustaining Membership, which has become more popular in recent years, is \$100. Checks — written on personal accounts, not corporation accounts — should be mailed to MMPAC, P.O. Box 9338, St. Louis, Missouri 63117.

AMA backs flu project

The American Medical Association has announced it supports President Ford's proposal to undertake a mass immunization program against a possible swine influenza epidemic. The MSMA is currently working with the Missouri Division of Health, Missouri Osteopathic Association and other medical-related organizations to develop a state plan of action.

Dr. Kelley appointed

Robert W. Kelley, M.D., of St. Louis, has been appointed to the State Board of Health by Gov. Christopher S. Bond. Dr. Kelley succeeds William A. Knight, M.D., of St. Louis, whose term has expired.

Dr. Kelley, who has been in the private practice of internal medicine since 1940, is a member of the St. Louis Board of Health and Hospitals, the Board of Alliance for Regional Community Health, and the Governor's Advisory Council for Comprehensive Planning.

Surgicenter rules set

Regulations for ambulatory surgical centers were adopted by the State Board of Health on Dec. 1, 1975, after review by the Hospital and Advisory Council and many interested individuals. The regulations were filed with the Missouri Secretary of State and became effective Feb. 1, 1976.

Surgicare, Inc., of St. Louis, was the first facility to be licensed by the Division of Health under the state Ambulatory Surgical Center Licensing Law passed during the last session of the Legislature. Ambulatory surgical centers operate during regular business hours and are closed at nights and weekends.

I & R's are students

Hospital interns and residents are students, rather than employees, and thus are not covered by federal bargaining laws, the National Labor Relations Board recently ruled.

The interns and residents aren't at the hospital to earn a living, the Board ruled, but are pursuing graduate medical education required for the practice of medicine.

Look at all the Continuing Medical Education opportunities the AMA has planned for you in 1976!



More and more physicians are interested in updating their medical skills and knowledge in the interest of better patient care. And, an ever-increasing number of state medical associations, specialty societies, and other medical groups are stipulating continuing medical education as a membership requirement.

In response to these developments, the AMA has greatly expanded its C.M.E. programs.

The nine regional meetings, multidisciplinary in approach, are of interest to a variety of medical specialists and physicians in primary care. Scheduled on weekends, they make it easier and more convenient for you to continue your education. Then there are the two AMA conventions. The Annual *alone* features 53 postgraduate courses, 41 3-hour symposia, the new telecourses and many, many other features in continuing education.

All courses at regionals and conventions are accredited on a hour-for-hour basis in Category I.

The AMA's Physician's Recognition Award fulfills C.M.E. requirements of many organizations, state laws and individual physicians.

REGIONAL C.M.E. MEETINGS

Jan. 17, 18	Tulsa, Okla.
Feb. 28, 29	Denver, Colo.
March 17-20	Lexington, Ky.
April 3, 4	Indianapolis, Ind.
April 3, 4	Detroit, Mich.
May 9	Dallas, Tex.
Sept. 4, 5	Jackson Hole, Wyo.
Sept. 11, 12	Milwaukee, Wis.
Sept. 10-12	Portsmouth, N.H.

125th ANNUAL CONVENTION

June 26-30	Dallas, Tex.
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30th CLINICAL CONVENTION

Dec. 4-7	Philadelphia, Pa.
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For more information about meetings, courses, accommodations, tuition fees, etc., write for a free course catalogue.



Council on Scientific Assembly
American Medical Association
535 North Dearborn Street
Chicago, Illinois 60610

WHEN DIET ALONE FAILS TO LOWER CHOLESTEROL



CONSIDER **Choloxin** (Sodium Dextrothyroxine)

AN IMPORTANT NOTE:

It has not been established whether the drug-induced lowering of serum cholesterol or lipid levels has a detrimental, beneficial, or no effect on the morbidity or mortality due to atherosclerosis or coronary heart disease. Several years will be required before current investigations will yield an answer to this question.

Proven Cholesterol-Lowering Adjunct to Diet.

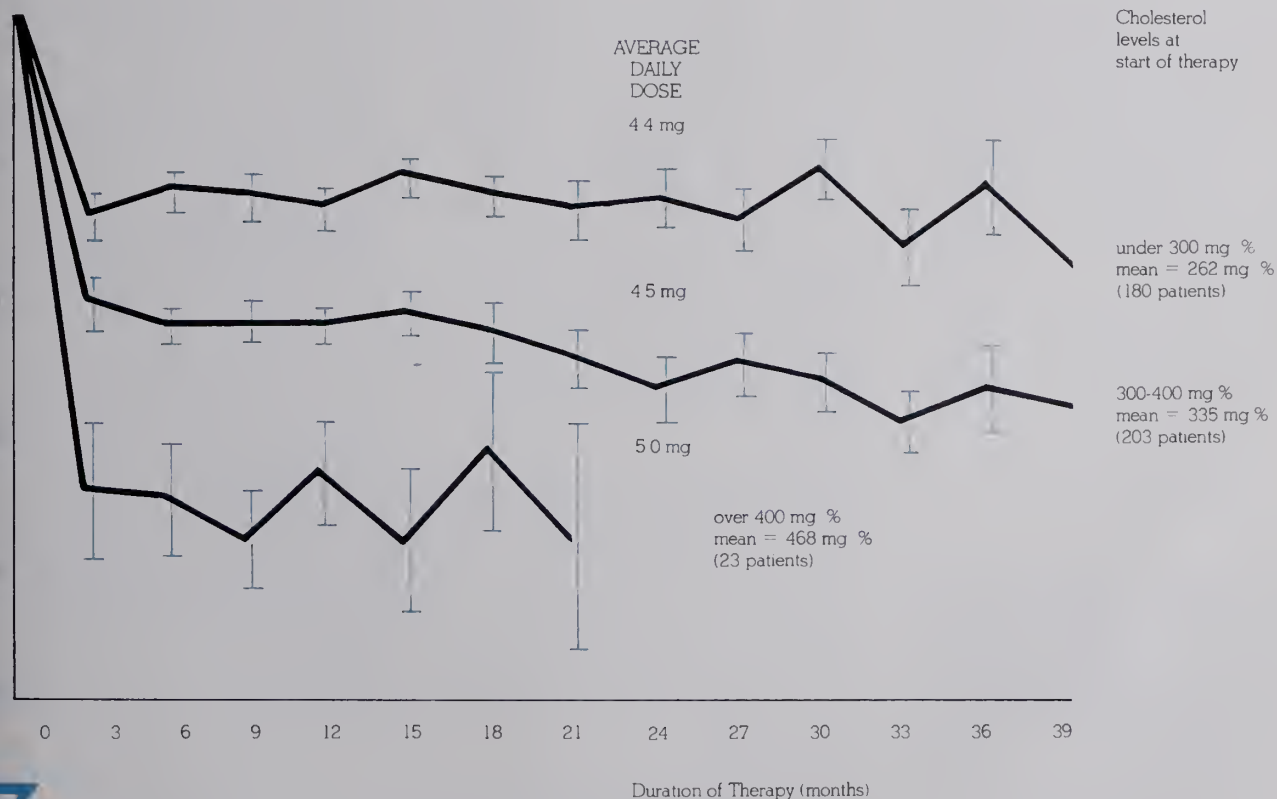
An effective agent for low density lipoproteins in euthyroid, Non-Cardiac Patients.

CHOLOXIN® (Sodium Dextrothyroxine) is the convenient and practical way to manage the hard-to-manage patient who doesn't always follow the diet regimen that you've outlined.

Convenient once-a-day dosage encourages patient cooperation, and it's economical for long-term therapy.

CHOLOXIN (Sodium Dextrothyroxine) is a thyroid analogue which effectively lowers elevated serum cholesterol 15 to 35% (see chart below) in low density lipoproteins.

CHOLOXIN (Sodium Dextrothyroxine) has undergone ten years of clinical trials and seven years of practice. The clinical trials consisted of 337 clinical studies involving over 3,000 hypercholesterolemic non-cardiac patients. It is among the most thoroughly evaluated drugs ever presented to physicians.



NOTE:

See following page for full prescribing information.

Choloxin[®]

(Sodium Dextrothyroxine)

Effectively Lowers Elevated Cholesterol With Convenient Once-A-Day Dosage

Four strengths—1, 2, 4, and 6 mg—are available making the scored tablet regimen a flexible dosage system. And, for most patients, CHOLOXIN tablets offer once-a-day dosage.

CHOLOXIN[®] (sodium dextrothyroxine) Single-Tablet-A-Day Dosage Schedules

See prescribing information in package insert reproduced below

	Starting Dosage	Increased Monthly by	Usual Maintenance	Maximal Recommended
Adult Hypercholesterolemic	1.0-2.0 mg	1.0-2.0 mg	4.0-8.0 mg	4.0-8.0 mg
Pediatric Hypercholesterolemic	0.05 mg/kg body weight	0.05 mg/kg	0.1 mg/kg body weight	4.0 mg
Hypothyroid Cardiac	0.5-1.0 mg	1.0 mg	4.0 mg	4.0 mg

Description

CHOLOXIN (sodium dextrothyroxine) is the sodium salt of the dextro-rotatory isomer of thyroxine. It is chemically described as D-3,5,3',5'-tetraiodothyronine sodium salt.

Actions

The predominant effect of CHOLOXIN (sodium dextrothyroxine) is the reduction of serum cholesterol levels in hyperlipidemic patients. Beta lipoprotein and triglyceride fractions may also be reduced from previously elevated levels.

Most of the available evidence indicates that CHOLOXIN stimulates the liver to increase catabolism and excretion of cholesterol and its degradation products via the biliary route into the feces. Cholesterol synthesis is not inhibited and abnormal metabolic end products do not accumulate in the blood.

Indications

This is not an innocuous drug. Strict attention should be paid to the indications and contraindications.

CHOLOXIN (sodium dextrothyroxine) is an antilipidemic agent used as an adjunct to diet and other measures for the reduction of elevated serum cholesterol (low density lipoproteins) in euthyroid patients with no known evidence of organic heart disease.

The drug is also indicated in the treatment of hypothyroidism in patients with cardiac disease who cannot tolerate other types of thyroid medication. **Before prescribing, note the following:** Results from a randomized clinical study have indicated a possible adverse effect when CHOLOXIN (sodium dextrothyroxine) is administered to a patient receiving a digitalis preparation. There may be an additive effect. This additive effect may possibly stimulate the myocardium excessively in patients with significant myocardial impairment. CHOLOXIN (sodium dextrothyroxine) dosage should not exceed 4 mg per day when the patient is receiving a digitalis preparation concomitantly. Careful monitoring of the total effect of both drugs is important.

It has not been established whether the drug-induced lowering of serum cholesterol or lipid levels has a detrimental, beneficial, or no effect on the morbidity or mortality due to atherosclerosis or coronary heart disease. Several years will be required before current investigations will yield an answer to this question.

Contraindications

The administration of CHOLOXIN (sodium dextrothyroxine) to euthyroid patients with one or more of the following conditions is contraindicated:

1. Known organic heart disease including angina pectoris, history of myocardial infarction, cardiac arrhythmia or tachycardia, either active or in patients with demonstrated propensity for arrhythmias, rheumatic heart disease, history of congestive heart failure, and decompensated or borderline compensated cardiac status.
2. Hypertensive states (other than mild labile systolic hypertension).
3. Advanced liver or kidney disease.
4. Pregnancy.
5. Nursing mothers.
6. History of iodism.

Warnings

CHOLOXIN (sodium dextrothyroxine) may potentiate the effects of anticoagulants on prothrombin time. Reductions of anticoagulant dosage by as much as 30% have been required in some patients. Consequently, the dosage of anticoagulants should be reduced by one-third upon initiation of CHOLOXIN (sodium dextrothyroxine) therapy and the dosage subsequently readjusted on the basis of prothrombin time. The prothrombin time of patients receiving anticoagulant therapy concomitantly with CHOLOXIN (sodium dextrothyroxine) therapy should be observed as frequently as necessary, but at least weekly, during the first few weeks of treatment.

In the surgical patient it is wise to consider withdrawal of the drug two weeks prior to surgery if the use of anti-coagulants during surgery is contemplated.

When CHOLOXIN (sodium dextrothyroxine) is used as thyroid replacement therapy in hypothyroid patients with concomitant coronary artery disease (especially those with a history of angina pectoris or myocardial infarction) or other cardiac disease, treatment should be initiated with care. Special consideration of the dosage schedule of CHOLOXIN (sodium dextrothyroxine) is required. This drug may increase the oxygen requirements of the myocardium especially at high dosage levels. Treated subjects with coronary artery disease must be seen at

frequent intervals. If aggravation of angina or increased myocardial ischemia, cardiac failure, or clinically significant arrhythmia develops during the treatment of hypothyroid patients, the dosage should be reduced or the drug discontinued.

Special consideration must be given to the dosage of other thyroid medications used concomitantly with CHOLOXIN (sodium dextrothyroxine). As with all thyroid active drugs, hypothyroid patients are more sensitive to a given dose of CHOLOXIN (sodium dextrothyroxine) than euthyroid patients.

Epinephrine injection in patients with coronary artery disease may precipitate an episode of coronary insufficiency. This condition may be enhanced in patients receiving thyroid analogues. These phenomena should be kept in mind when catecholamine injections are required in sodium dextrothyroxine-treated patients with coronary artery disease.

Since the possibility of precipitating cardiac arrhythmias during surgery may be greater in patients treated with thyroid hormones, it may be wise to discontinue CHOLOXIN (sodium dextrothyroxine) in euthyroid patients at least two weeks prior to an elective operation. During emergency surgery in euthyroid patients and in surgery in hypothyroid patients in whom it may not be advisable or possible to withdraw therapy, the patients should be carefully observed.

There are reports that sodium dextrothyroxine in diabetic patients is capable of increasing blood sugar levels with a resultant increase in requirements of insulin or oral hypoglycemic agents. Special attention should be paid to parameters necessary for good control of the diabetic state in dextrothyroxine-treated subjects and to dosage requirements of insulin or other antidiabetic drugs. If sodium dextrothyroxine is later withdrawn from patients who required an increase of insulin (or oral hypoglycemic agents) dosage during its administration, the dosage of antidiabetic drugs should be reduced and adjusted to maintain good control of the diabetic state.

When either or both impaired liver or kidney function are present, the advantages of CHOLOXIN (sodium dextrothyroxine) therapy must be weighed against the possibility of deleterious results.

Usage in Women of Childbearing Age

Women of childbearing age with familial hypercholesterolemia or hyperlipemia should not be deprived of the use of this drug. It can be given to those patients exercising strict birth control procedures. Since pregnancy may occur despite the use of birth control procedures, administration of CHOLOXIN (sodium dextrothyroxine) to women of this age group should be undertaken only after weighing the possible risk to the fetus against the possible benefits to the mother. Teratogenic studies in two animal species have resulted in no abnormalities in the offspring.

Precautions

It is expected that patients on dextrothyroxine therapy will show greatly increased serum protein bound iodine levels. These increased serum PBI values are evidence of absorption and transport of the drug and should NOT be interpreted as evidence of hypermetabolism. Similarly, they may not be used for titrating the effective dose of CHOLOXIN (sodium dextrothyroxine). PBI values in the range of 10 to 25 mcg% in treated patients are common.

If signs or symptoms of iodism develop during CHOLOXIN (sodium dextrothyroxine) therapy, the drug should be discontinued.

A few children with familial hypercholesterolemia have been treated with CHOLOXIN (sodium dextrothyroxine) for periods of one year or longer with no adverse effects on growth. However, it is recommended that the drug be continued in patients in this age group only if a significant serum cholesterol-lowering effect is observed.

Adverse Reactions

The side effects attributed to dextrothyroxine therapy are for the most part due to increased metabolism and may be minimized by following the recommended dosage schedule. Adverse effects are least commonly seen in euthyroid patients with no signs or symptoms of organic heart disease. The incidence of adverse effects is increased in hypothyroid patients and is highest in those patients with organic heart disease superimposed on the hypothyroid state.

In the absence of known organic heart disease, some cardiac changes may be precipitated during sodium dextrothyroxine therapy. In addition to angina pectoris, arrhythmia consisting of extrasystoles, ectopic beats or supraventricular tachycardia, ECG evidence of ischemic

myocardial changes and increase in heart size have been observed. Myocardial infarctions, both fatal and non-fatal, have occurred, but these are not unexpected in untreated patients in the age groups studied. It is not known whether any of these infarcts were drug related.

Changes in clinical status that may be related to the metabolic action of the drug include the development of insomnia, nervousness, palpitations, tremors, loss of weight, lid lag, sweating, flushing, hyperthermia, hair loss, diuresis, and menstrual irregularities. Gastrointestinal complaints during therapy have included dyspepsia, nausea, and vomiting, constipation, diarrhea, and decrease in appetite.

Other side effects reported to be associated with CHOLOXIN (sodium dextrothyroxine) therapy include the development of headache, changes in libido (increase or decrease), hoarseness, tinnitus, dizziness, peripheral edema, malaise, tiredness, visual disturbances, psychic changes, paresthesia, muscle pain, and various bizarre subjective complaints. Skin rashes, including a few which appeared to be due to iodism, and itching have been attributed to dextrothyroxine by some investigators. Gallstones have been discovered in occasional dextrothyroxine-treated patients and cholestatic jaundice has occurred in one patient although its relationship to CHOLOXIN (sodium dextrothyroxine) therapy was not established.

In several instances, the previously existing conditions of the patient appeared to continue or progress during the administration of CHOLOXIN (sodium dextrothyroxine), a worsening of peripheral vascular disease, sensorium, exophthalmos, and retinopathy have been reported.

CHOLOXIN (sodium dextrothyroxine) potentiates the effects of anticoagulants such as warfarin or Dicumarol on prothrombin time, thus indicating a decrease in the dosage requirements of the anticoagulants. On the other hand, dosage requirements of antidiabetic drugs have been reported to be increased during dextrothyroxine therapy (see WARNINGS section).

Dosage and Administration

For adult euthyroid hypercholesterolemic patients, the recommended maintenance dose of CHOLOXIN (sodium dextrothyroxine) is 4 to 8 mg per day. The initial daily dose should be 1 to 2 mg to be increased in 1 to 2 mg increments at intervals of not less than one month to a maximum level of 4 to 8 mg daily, if that dosage level is indicated to effect the desired lowering of serum cholesterol.

When used as partial or complete substitution therapy for levothyroxine in hypothyroid patients with cardiac disease who cannot tolerate other types of thyroid medication, the initial daily dose should be 1 mg to be increased in 1 mg increments at intervals of not less than one month to a maximum level of 4 to 8 mg daily, preferably the lower dosage. The maximum in patients receiving digitalis therapy is 4 mg.

For pediatric hypercholesterolemic patients, the recommended maintenance dose of CHOLOXIN (sodium dextrothyroxine) is approximately 0.1 mg (100 mcg) per kilogram. The initial daily dosage should be approximately 0.05 mg (50 mcg) per kilogram to be increased in up to 0.05 mg (50 mcg) per kilogram increments at monthly intervals. The recommended maximal dose is 4 mg daily, if that dosage is indicated to effect the desired lowering of serum cholesterol.

If new signs or symptoms of cardiac disease develop during the treatment period, the drug should be withdrawn.

How Supplied

CHOLOXIN (sodium dextrothyroxine) is supplied in prescription packages of scored 1, 2, 4, and 6 mg tablets.

March 1975



FLINT LABORATORIES

DIVISION OF TRAVENOL LABORATORIES, INC.
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in Brief

A summary of AMA, medical & health news

American Medical Association / 535 North Dearborn Street / Chicago, Illinois 60610 / Phone (312) 527-1500 / TWX 910-221-0300

In response to an FTC complaint charging that the AMA's ethical ban on advertising by physicians is in restraint of trade, the Association filed a motion to force the Federal Trade Commission to show any evidence substantiating its charge. The subpoena request by the AMA was made at a pre-hearing conference on February 25. October 18 was set as the starting date for the administrative trial. The FTC filed its complaint December 22 against the AMA, the Connecticut State Medical Society and the New Haven County Medical Association.

Two states have entered the AMA's lawsuit against HEW's maximum allowable cost drug reimbursement regulations on the side of the government. A U. S. District Court in Chicago recently accepted motions from Massachusetts and Connecticut. The AMA suit charges that the MAC regulations interfere with a physician's right to practice medicine and with the patient's right to receive his physician's best judgment. In a related action, HEW Secretary David Mathews rejected a request to postpone the April 26 starting date for MAC.

An ad hoc committee on medical discipline has been established by the AMA's Board of Trustees to study the disciplinary mechanisms of medical associations and determine the effectiveness of medical discipline; recommend appropriate modifications in medical self-regulation; recommend improvements in state legislation and licensure board regulations; review the procedures by which hospitals limit privileges within the individual physician's competence; and study and relationship between medical discipline and malpractice claims.

The new Accreditation Council for Ambulatory Health Care is accepting applications for surveys. The program is being developed by the Joint Commission on Accreditation of Hospitals, supported in part by a grant from the W. K. Kellogg Foundation. Members of the council are the AMA, American Hospital Association, American Group Practice Association, Group Health Association of America, and Medical Group Management Association.

The American Group Practice Association will continue its accreditation program until the council's program becomes operational. Direct inquiries to Accreditation Council for Ambulatory Health Care, JCAH, 875 N. Michigan Ave., Chicago, Ill. 60611.

The AMA named a National Commission on the Cost of Medical care to appraise all factors leading to rising expenditures and to review optional courses for public and AMA policy in coping with increased costs. The 21-member commission will explore the operational aspects of the health care delivery system and will facilitate nationwide discussion and dissemination of the facts and issues regarding health care costs.

Six state medical societies were named to participate in the AMA pilot program aimed at setting up a national accreditation system for jails. The state associations, which were selected by the AMA's Advisory Committee to Improve Medical Care and Health Services in Correctional Institutions, are Georgia, Indiana, Maryland, Michigan, Washington and Wisconsin. Each will receive a \$25,000 grant from the federal Law Enforcement Assistance Administration.

Hospital admissions dropped for the first time in 15 years, according to a periodic survey by the American Hospital Association covering the first nine months of 1975. The number of admissions as of September 30 was 25,145,539, down 0.4% from the comparable period of 1974.

The lowest death rate ever recorded in the U. S. was set in 1974, with 9.2 per 1,000 population, according to the National Center for Health Statistics. Major contributions to the record set in 1974 were declines in death rates from heart disease, stroke and accidents. Death rates for suicide and homicide in 1974 were the highest ever recorded.

Available from AMA: Copies of the AMA's Board of Trustees report to the House of Delegates on the National Health Planning and Resources Development Act of 1974. Write Division of Medical Practice, AMA Headquarters.

medical melange

Notes of interest from Here

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A recognition day and reception were held on March 21 in honor of **Dr. O. H. Damron** who has retired after 35 years as a general practitioner in Warrensburg. The event was sponsored by the Johnson County Medical Society Auxiliary who also honored Dr. Damron at a dinner attended by members of the Medical Society and Auxiliary. Dr. Damron received his M.D. degree at St. Louis University School of Medicine in 1929. After practicing in Keytesville for nine years, he entered St. Louis City Hospital for postgraduate work. He started his practice in Warrensburg in 1941. Dr. Damron became a charter member of the American Academy of Family Practice in 1973 and was honored with the first group of physicians at Madison Square Garden in New York City.

Dr. Esther Winkelman was elected president of The Greater Kansas City Chapter of the American Medical Women's Association at the organizational meeting on February 26 at the home of **Dr. Barbara Buchanan** in Kansas City. This is the first local chapter of AMWA in either of the two states in the five-county area which includes Clay, Platte and Jackson counties in Missouri and Johnson and Wyandotte counties in Kansas. Other officers elected were **Dr. Katherine Smith**, president-elect and **Dr. Buchanan**, secretary-treasurer. **Dr. Rita Perll** was appointed membership committee chairman. One project of the chapter will be a scholarship award to a woman student attending the University of Missouri-Kansas City Medical School.

Dr. Florian G. Hopkins was selected as Citizen of the Month of March by the Bicentennial Committee of Gideon. Dr. Hopkins started his practice of medicine in Gideon in 1939. Until his retirement, he was active in many civic organizations. He was listed in the 1960 and 1973 *Who's Who in the Midwest* and was named an Honorary Colonel for eight years during the administration of Gov. Warren Hearnes.

Dr. John J. Brown has retired after 40 years of practice in Fulton. A native of Fulton, Dr. Brown graduated from Westminster College. He received his M.D. degree at Washington University School of Medicine in 1934.

Dr. Jose M. Sala has accepted the appointment as medical director and chief of Radiation Oncology at the University of New Mexico Cancer Research and Treatment Center in Albuquerque, N. M. He also has a joint appointment as professor of Radiology, Department of Radiology at the University of New Mexico School of Medicine. Dr. Sala formerly was director of the Radiation Centre at Cox Medical Center in Springfield. He also was president of the consulting staff at Ellis Fischel State Cancer Hospital in Columbia and chairman of the Association of Tumor Registry Directors of Missouri.

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Missouri Medicine

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LINCOLN KROCHMAL, M.D. and
PHILIP C. ANDERSON, M.D., *Columbia*

Copperhead Bites: Update on Therapy

Case Reports

*In 1885, Dr. M. G. Ellzey wrote in the Virginia Medical Monthly, "The copperhead is unquestionably far less venomous than it has the credit of being. It is in fact very doubtful whether the bite of the copperhead is at all dangerous to the life of a healthy adult, and this accounts for the supposed success of so many absurd and useless remedies. I have concluded, therefore, that an article on this subject in this journal may serve to remove erroneous impressions and possibly in some cases, to prevent useless alarm and foolish treatment."*¹

THE BITE OF THE COPPERHEAD SNAKE (*Agkistrodon contortrix*) need not be a cause for great alarm among physicians and hospital personnel. After ten years of experience in treating five to ten copperhead bites each year at the University of Missouri Medical Center, we advocate a very conservative approach, reserving elaborate therapy for only the rare severe envenomation. We advise conservative management only for copperhead bites and not for pigmy rattlers or other venomous snakes found in greater Missouri. Snakes and their venoms vary by region and climate, so our recommendations concern only the rural mid-Missouri counties.

GENERAL CONSIDERATIONS

Acting from our own experience, we discourage the use of tourniquets and incision and suction of the wound because, for the most part, they are poorly done. It is essential that transfer to a medical facility not be delayed by heroic first-aid mea-

sures which often increase morbidity with little benefit to the patient. Furthermore, data from animal experimentation supporting these first-aid procedures are inconclusive when applied to humans.²⁻⁶ Additional careful studies are needed to determine their questionable value. A layperson should be concerned with moving a snakebite victim promptly to medical assistance.

INITIAL EVALUATION

At the emergency room, the envenomated wound is cleansed with germicidal soap. We record prior adverse reactions or allergies to horse serum, anti-

During the past ten years, excellent results have been obtained with conservative therapy for copperhead bites and with particular avoidance of antivenin. Copperhead snakebites are much less dangerous than the bites of rattlesnakes and, especially, the Eastern and Western diamondback rattlers. Morbidity can be minimized by following the Wood-Parrish grading system and by using a medical management flow sheet. The authors discourage the use of tourniquets, cryotherapy, steroids and antihistamines. Dr. Krochmal and Dr. Anderson are from the Division of Dermatology, Department of Medicine, University of Missouri Medical Center.

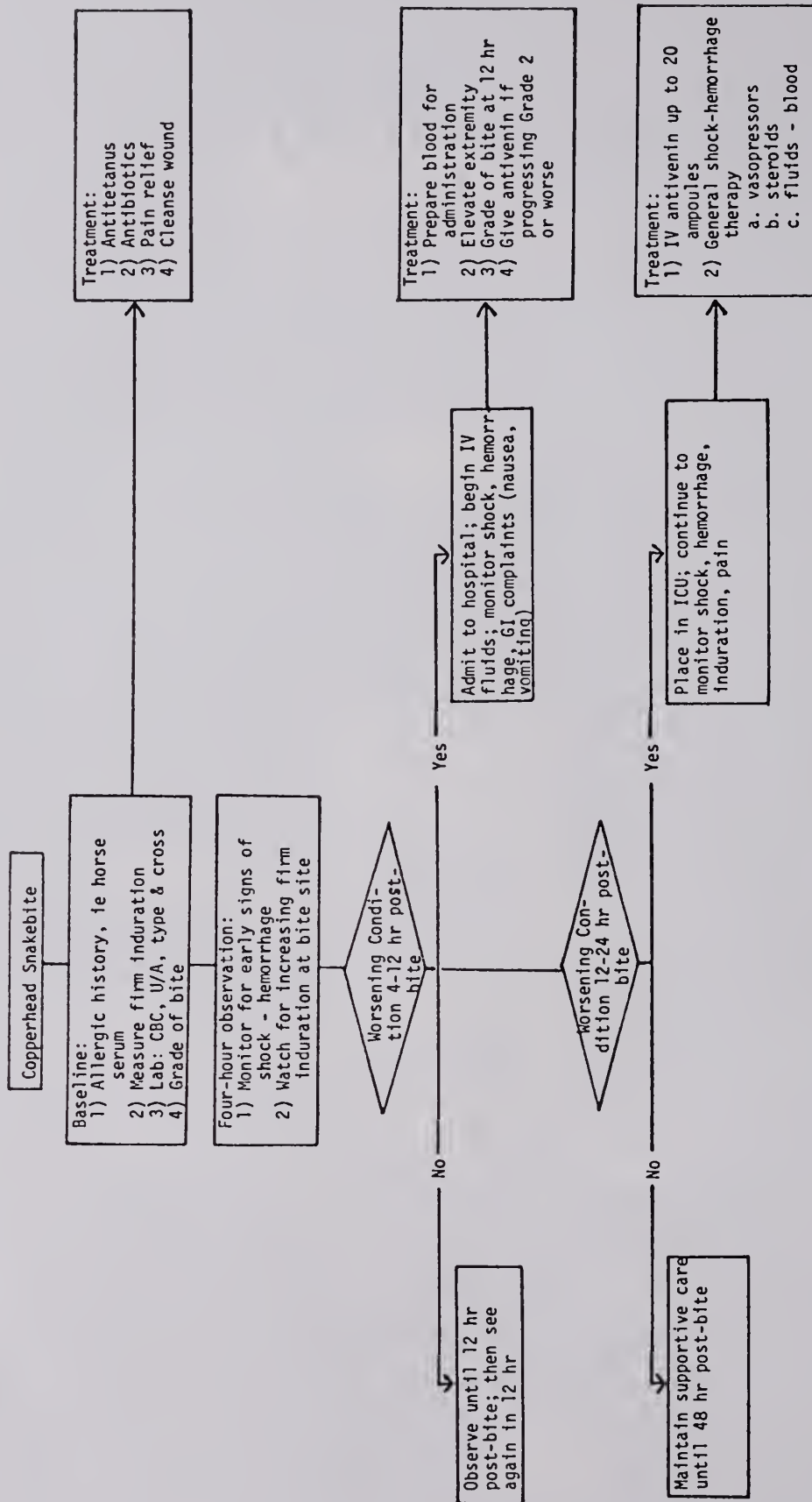


Fig. 1 Medical Management Flowsheet for Copperhead Snakebites.

GRADE or STAGE	INCIDENCE AT 12 HOURS	LOCAL SIGNS *SIZE OF REACTION	SYSTEMIC SIGNS	ANTIVENIN 10cc ampoules	SPECIAL CONSIDERATIONS
0	30% or more	1"	0	none	Observe for 4 hrs. minimum
1	35%	Pain 2-5"	None to slight nausea, hypotension	Hold	#Watch for early shock unless bite is on face, fingers, genitals, closed spaces; observe 24 hrs.
2	25%	Pain 6-12"	Nausea, vomiting, signs of shock and hemorrhage	1-2 IV if progressing 2-4 IV	Admit to hospital; give IV fluids, blood if needed. Double or triple antivenin dose if to children or small adults
3	9%	Pain 12"	Shock, hemorrhage, deteriorating condition	5-10 IV	Monitor in ICU
4	1%	Progressing, acute, severe	Rapidly worsening	10-20 IV stat; repeat as needed	

Fig. 2 Modified Wood-Parrish Grading and Treatment System.

biotics and tetanus toxoid. The physician carefully documents in the hospital record all systemic and local signs with review of the clinical status at four-hour intervals or sooner. Our flow sheet has been provided as a guideline (Fig. 1). The number of bites and the distance between fang marks help to estimate the amount of envenomation. The more widespread the fang marks are, the larger the snake with greater chance of severe envenomation. Experimental studies have shown that snakes can produce varying amounts of venom with each succeeding bite, i.e., a snake need not exhaust its venom supply in a single bite.⁷ Crucial to our system is the accurate measurement of firm induration at the bite site and not soft edema and erythema. We use a grading system based on Wood's original description⁸ with modifications by Parrish⁹ (Fig. 2).

All venomous snakes in our region are pit vipers. This Wood-Parrish treatment system applies to the bites of all pit vipers, including rattlesnakes. Precise identification of the snake assists in deciding the patient's prognosis and may be especially reassuring if a nonvenomous snake is the culprit. If the snake cannot be identified, however, the same grading system should be followed. Exceptions include some venomous foreign snakes and snakes with neurotoxic venoms, such as cobras, which necessitate a different grading and treatment system.

LABORATORY TESTS

We obtain baseline laboratory values which may include blood counts, clotting time, prothrombin time, urinalysis and blood for type and cross match. Copperhead snake venom contains hyaluronidase, which is a tissue spreading factor, and proteases and phosphatidases which can cause hemolysis.¹⁰ Because hemolysis can interfere with type and cross matching of blood, this procedure should be performed as soon as possible.

THREE AS: ANTITETANUS, ANTIBIOTICS, ANTIVENIN

We consider the traditional three As—antitetanus, antibiotics and antivenin—as the next step in planning treatment. Tetanus prophylaxis is administered if not previously received within five years. All bites should be treated with antibiotics. We use either erythromycin, cloxacillin or minocycline since the main concern is secondary infection with streptococci and staphylococci.

The oropharynx and fangs of snakes in their natural environment are sterile. Upon captivity, the oropharynx becomes rapidly colonized by gram positive and gram negative organisms.^{11, 12} No studies of snake-wound infections confirm the clinical importance of these organisms. However, victims bitten by captive snakes should be treated precisely with antibiotics.

Human serum antivenin is not commercially

PROCEDURE FOR DESENSITIZATION

1. One ampoule of antivenin is diluted 1:100 with normal saline and 0.1 cc is injected intracutaneously into the forearm. If no adverse reaction occurs by 20 minutes, then 0.5 cc is injected. If after another 20 minute period there is no adverse reaction, 1.0 cc is injected.
2. This sequence is repeated with a 1:10 dilution and then with undiluted antivenin.
3. If all goes well, then one ampoule (10 cc) of antivenin is diluted in 500 cc normal saline to make a 1:50 dilution and is given slowly intravenously.

Fig. 3

available. The antivenin used is of equine origin (Crotalidae polyvalent) and is manufactured by Wyeth Laboratories. Horse serum sickness is the most common disability relating to copperhead snakebites and their treatment.¹³ Intracutaneous testing with 0.02 cc of a 1:10 dilution of horse serum can be used to test for sensitivity. In the event of horse serum allergy, special procedures are needed. Although we have never needed it, a desensitization procedure has been devised for those rare patients in life-threatening situations (Fig. 3).¹²

FOUR-HOUR EVALUATION

We review the patient's status in detail at four hours after the bite. The area of firm induration is studied and the grading is revised if necessary. Systemic signs of early shock or hemorrhage may herald a worsening condition. A rapidly progressing Grade 1 or higher grade justifies hospitalization, intravenous infusion and full-time supervision. Antivenin is withheld unless progression to Grade 3 or Grade 4 or involvement of the face, digits or genitalia necessitates its use. The physician may double or triple the dose of antivenin for children or small adults because the venom is distributed in a smaller body-fluid volume.¹⁴

In Grade 3 or Grade 4, antivenin is administered intravenously; one 10 cc ampoule is diluted in 500 cc NS and given slowly. A repeat dose can be given in one or two hours.¹⁵ We do not recommend injection into the wound site since vasoconstriction around the wound site delays systemic absorption of the antivenin. In addition, antivenin does not counteract the local necrotizing effects of venom.¹⁶ Intramuscular injection of antivenin, likewise, is erratic and slow in its effect. Neutralization of venom is best achieved by intravenous administration of antivenin. As many as 20 ampoules can be given if symptoms warrant. Shock and hemorrhage are managed in the usual fashion.

12-HOUR REEVALUATION

By 12 hours after the bite, we usually can predict the clinical outcome (Fig. 2). More than two thirds of victims prove to have only a mild bite (Grade 0 or Grade 1) for which antivenin is never used, and the patient returns home. If a bite is a mild Grade 2 or less, then only conservative supportive therapy is needed pending further change. Bites of Grade 3 or Grade 4, if severe, continue to receive vigorous treatment as needed.

STEROIDS AND ANTIHISTAMINES

Studies in mice and dogs have shown that steroids are ineffective if injected parenterally or at the wound site.^{7, 17-20} In fact, hydrocortisone may enhance the action of venom.¹⁷ Wood *et al* support the use of corticosteroids only in severe bites of Grade 3 or more.^{7, 8} Antihistamines have a venom-potentiating effect and are to be avoided.²⁰

CRYOTHERAPY

We advise against the use of ice packs and immersion in cold water for several reasons. First, localization of venom at the bite site for a prolonged period often results in severe necrosis, necessitating amputation and grafting. Second, cessation of cryotherapy may result in the sudden release of an overwhelming bolus of venom which can be fatal.^{21, 22}

CASE REPORTS

Case #1. A 20-year-old coed was admitted approximately 30 minutes after suffering a copperhead bite to her right ankle while hiking and climbing over rocky cliffs. Pain in the ankle and foot and mild nausea were the chief complaints. By 24 hours after the bite, the area of firm induration was 2 to 3 inches around the fang marks while the area of pain, soft edema and erythema extended to mid thigh. Tender right inguinal adenopathy was present. There was no evidence of bleeding or shock. This painful Grade 1 bite was managed with intravenous maintenance fluids, tetanus toxoid, erythromycin and demerol with elevation of the extremity and bed rest. She was discharged on the third day with minimal symptoms and no residual disability. The patient made an uneventful recovery.

Case #2. A 6½-year-old girl suffered a copperhead bite on her right middle finger while reaching for a fruit jar in a root cellar. She was initially seen by her private physician who administered 1 ampoule of antivenin intramuscularly and applied an ice bath. Upon arrival at the University of Missouri Medical Center one hour later, firm induration was localized to the finger and hand, and hemorrhagic bulla were present over the fang marks on the finger. Erythema, edema and pain extended up the entire arm with tender right axillary adenopathy. Doppler examination showed an

(Continued on page 178)

Recent Advances in Research on Cystic Fibrosis

THE WIDESPREAD EXOCRINE GLAND DYSFUNCTION which characterizes cystic fibrosis (CF) generally manifests itself by abnormalities in the composition and physiochemical behavior of exocrine secretions. These abnormalities underline the various clinical and pathologic manifestations of the disease and result in symptoms involving the respiratory tree, the gastrointestinal tract and the eccrine sweat glands.¹ Because of the universal exocrine gland involvement in cystic fibrosis, considerable interest has existed in the physiologic mechanisms that underline the process of secretion.

Following early observations of the altered composition of submaxillary saliva, tracheobronchial secretions, pancreatic juice, sweat and other exocrine fluids in the CF patient, attempts to understand the possible pathogenetic mechanisms were hampered significantly by the lack of understanding about the "normal" function of exocrine glands. It became evident that a clear understanding of the normal secretory mechanisms was necessary in order to elucidate the nature, extent and localization of the CF disturbance.

It is now possible to say that our understanding of such physiologic mechanisms of secretion has grown significantly in the last decade and that considerable progress has been made in elucidating some of the fundamental processes that regulate the extrusion of fluid, ions and organic materials from exocrine glands. The inherent limitations of research on human subjects have made direct studies difficult, and it has been necessary to seek ways of reproducing the secretory disturbance of CF in animals. The search for an adequate animal model has been hampered, however, by the lack of a genetic equivalent in lower species.

As knowledge of exocrine gland function advanced, however, it became possible to use a pharmacological approach to alter the secretory activity of exocrine tissues in an attempt to reproduce the abnormalities of the CF patient. This approach has resulted in the development of potential animal models for CF. Therefore, this report will deal in the first place with some of the recent advances in research that have improved our understanding of the secretory process in exocrine glands and of factors that may disturb it.

Since the incidence of CF is approximately one in 2,000 live births, it follows that approximately 5% of the white population or close to 10 million individuals are carriers of the disease in this country. This emphasizes the importance of a method for heterozygote detection. Several attempts have been made in the last few years to develop such methods, primarily on the basis of bioassay procedures arising from the observation that CF body fluids, particularly serum, contained a "factor" which inhibited ciliary beat in both invertebrate and vertebrate organisms. The second part of this report includes a summary of the research being conducted in this area of CF factors and heterozygote detection.

EXOCRINE SECRETORY PROCESS

Most exocrine glands are acino-tubular structures which secrete a complex fluid elaborated in the secretory (acinar) portion and later modified to a greater or lesser extent by the excretory (tubular) portion of the glandular epithelium. Each of the two segments of the glands, therefore, fulfills specific and specialized functions in the elaboration of the final secretory product and can be altered, at least in functional terms, in disease states such as CF.

In general terms, exocrine secretory activity is not an intrinsic, automatic process of the gland cells but, rather, a complex mechanism which is finely modulated by exogenous influences of neural and hormonal nature. A great deal has been learned in the last decade about the neurohumoral regulation of exocrine gland growth and reproduction, mineral and protein metabolism and fluid production. There are, to be certain, gland and species differences in the specific interaction of the secretory cells with neurohumoral or hormonal influences but, in general, secretory cells possess specific receptors for these humoral regulators or for exogenous analogs (drugs). These receptors are thought to be genetically determined macromolecules localized within the cell membrane which have specific recognition sites (chemical configurations) for the specific neural or hormonal regulators.

Numerous observations suggest that the primary

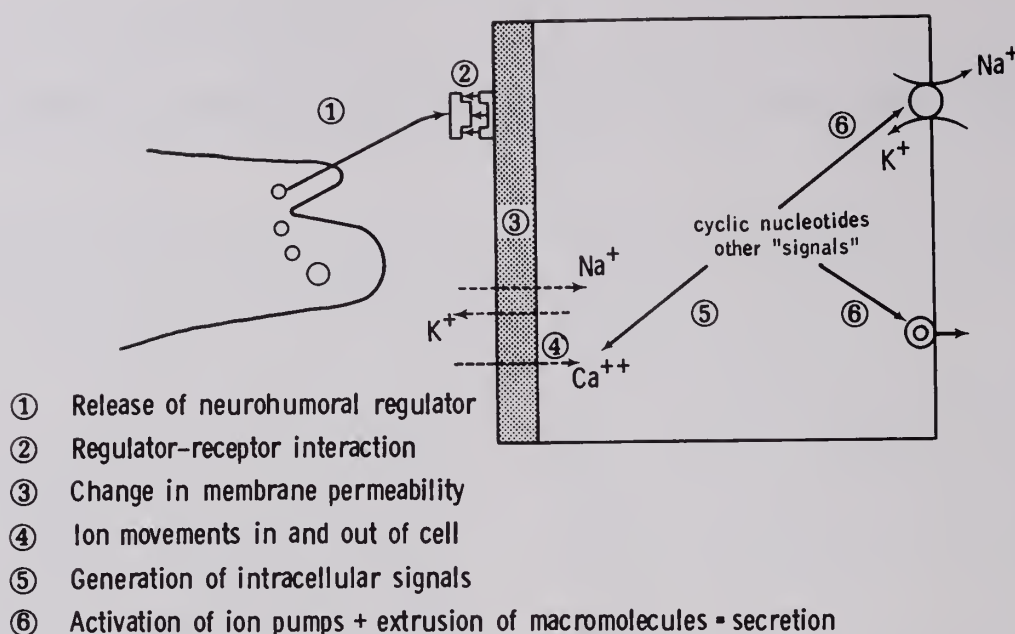


Fig. 1 Sequence of events occurring in the stimulus-secretion coupling mechanism of secretory (exocrine) cells.

regulator-receptor interaction triggers a change in the chemical configuration of the receptor macromolecules which, in turn, initiates a series of membrane changes. These include the translocation of monovalent ions (particularly sodium and potassium), the displacement of calcium, changes in the electrical activity (potential) of the cells and, most likely, changes in the activity of membrane-bound enzymes. This sequence of events occurring at the cell membrane is intimately linked with the generation of intracellular "signals" that result in the stimulation of cellular metabolic activity and, ultimately, in the physiologic response, i.e. secretion, of the entire cell. The entire sequence has been called the stimulus-secretion coupling mechanism (Fig. 1) in view of its similarities with excitation contraction coupling in muscle.

ANIMAL MODELS

Given the complex nature of this "coupling" mechanism, it is of interest that some aspects of the sequence can be selectively altered by pharmacological agents. Starting with the view that the secretory abnormality in CF may be the result of disturbances in the neurohumoral regulation of exocrine glands, we have used a number of drugs in an attempt to block or to break the secretory sequence and to induce changes in the secretory response of exocrine cells. Several of these drugs induce acute changes either in the release of neurohumoral transmitter substances, or by blocking the

receptor sites, in their interactions with membrane receptors. We have found that one of these drugs induces widespread changes in exocrine tissues when administered for several days to albino rats.²⁻⁶

The drug in question is reserpine, a widely used agent in the treatment of hypertension because of its powerful norcpinephrine-depleting action. Our results indicate that its chronic administration induces morphologic and secretory changes in exocrine glands which are strikingly similar to those observed in the CF patient. These changes are summarized in Table 1 and can be generally described as the development of a hypersecretory state both in morphologic and functional terms. Of special interest are the apparent accumulation of mucosubstances in the cells of the different exocrine tissues studied (submaxillary acinar cells, intestinal and bronchial goblet cells, pancreatic acinar cells); the distention and obstruction of glandular ducts; the abnormalities in the composition of exocrine secretions, particularly the increased protein, carbohydrate, calcium and sodium in submaxillary saliva; and, finally, the development of ciliostimulatory properties in this secretion. The latter observation provides an interesting link to the area of so-called CF factors which is summarized below.

The apparently generalized exocrine gland dysfunction induced by reserpine provides a useful experimental tool that may bridge previous gaps between fundamental physiology and the CF exocrine

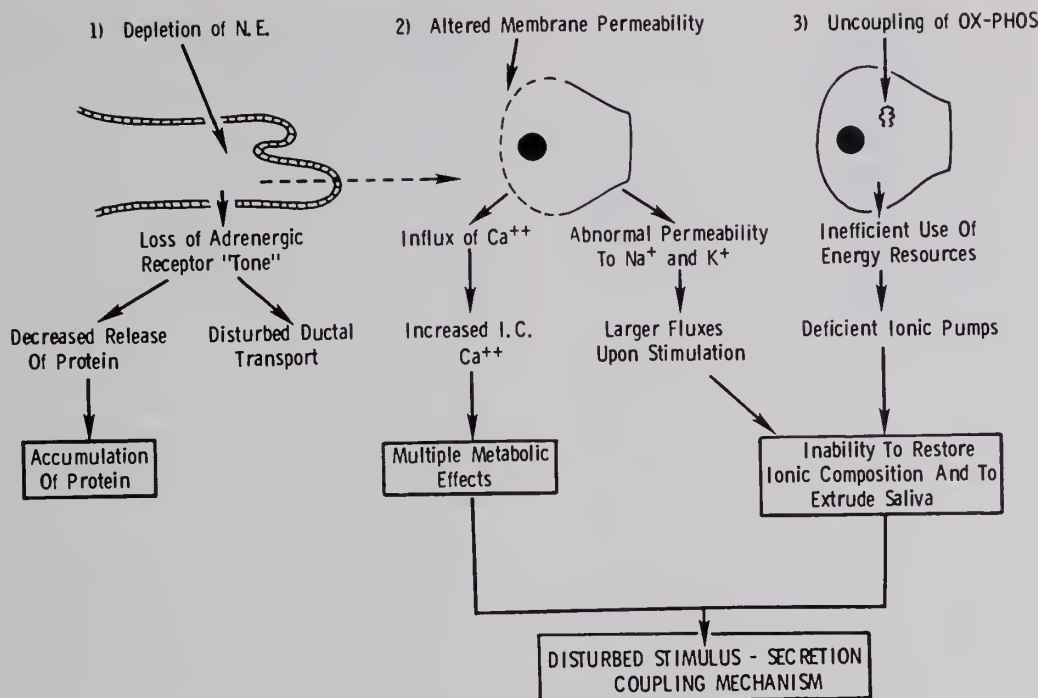


Fig. 2 Possible mechanisms of drug effects.

TABLE 1
EFFECTS OF CHRONIC ADMINISTRATION OF
RESERPINE ON EXOCRINE GLANDS

Organ	Effects of Reserpine
Submaxillary gland	◦ Increased PAS-reactivity in acinar cells ◦ Distention and obstruction of ducts - Increased granularity in duct cells - Decreased perinuclear RER ◦ Increased in size and number of mucous globules ◦ Decreased volume of secretion ◦ Increased Na^+, Ca^{++}, protein and CHO concentrations in saliva
Parotid	◦ Development of cilioinhibitory properties in saliva ◦ Increased PAS-reactivity in acinar cells ◦ Obstruction of ducts
Pancreas	◦ Dilatation of acini and ducts ◦ Obstruction of ducts ◦ Abnormal secretion of enzymes
Respiratory tree	- Changes in mucous-secreting structures ◦ Increased protein and presence of extra protein in lung lavage material
Intestine	◦ Hyperplasia of goblet cells - Increased mucous coat

◦ Also described in C.F. patients.

secretory abnormality. Further studies in our laboratory have attempted to elucidate the mechanism of the reserpine action on exocrine cells. By comparing the effects of this drug with those of others that result in norepinephrine depletion, we have been able to establish that the lack of sympathetic control secondary to the depletion of the neurotransmitter underlines some, but not all, of the reserpine effects.

The most important effect of the drug appears to be on the cell membrane, where it alters the permeability to ions and, most likely, the character of membrane receptors. Since an adequate membrane function is necessary for a normal stimulus-secretion coupling, by altering the membrane of secretory (salivary) cells, reserpine causes a disturbance in the sequence of membrane events that follow stimulation. This probably results in an abnormal response to the physiologic regulators (neurotransmitters) and, as a corollary, in an abnormal secretory product. The suspected drug effects on secretory cells are shown in Fig. 2.

Although these concepts are preliminary in nature, they do allow the development of a working hypothesis regarding the pathogenesis of the secretory disturbance in CF. This hypothesis is shown in Fig. 3 and includes possible sites where reserpine may act to reproduce the sequence of alterations presumably occurring in CF. Other alternative mechanisms must be investigated, however, before

more definite statements can be made on the possible relevance of the animal model. As an example, the effects of reserpine on the intracellular signals that link membrane events with the secretory process per se have to be elucidated. Foremost in this

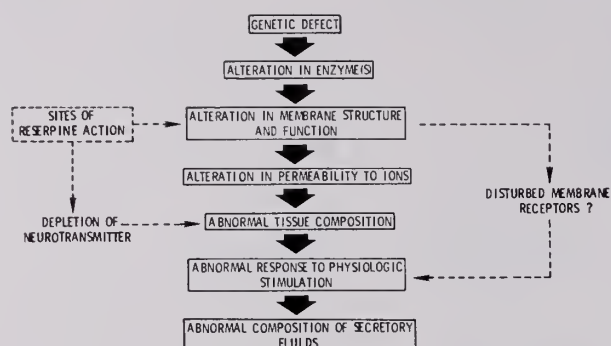


Fig. 3 Working hypothesis of possible pathogenetic mechanisms in CF.

area is the potential role of calcium as an intracellular messenger, since reserpine has been shown already to disrupt the calcium homeostasis in target tissues, including exocrine glands. Despite the preliminary nature of the present observations, they have initiated a new approach to the study of exocrine gland dysfunction as it applies to human disease and have resulted in the development of additional laboratory tools that may prove useful not only in the understanding of pathogenetic mechanisms but, also, in the ultimate analysis of potential therapeutic approaches to the CF secretory disturbance.

CF "FACTORS"

Several techniques based on the ability of serum and other fluids from CF patients to induce alterations in ciliary beat have been developed ever since Spock reported a ciliary dyskinetic factor in CF serum.⁷ The ciliotoxic factor has been demonstrated by bioassay methods utilizing either cultured rabbit tracheal epithelium or the gills of oysters and fresh water mussels. Activity is assessed in terms of disruption or cessation of normal, rhythmic ciliary beat. In general, the "factors" have been found to be present in sera from CF homozygotes and obligate heterozygotes, in saliva and sweat from CF homozygotes and in cultured cells (fibroblasts, amniotic cells) from CF homozygotes and

heterozygotes. Partial characterization of the cilioinhibitory factor suggests that it is a small cationic (basic) protein or polyelectrolyte (molecular weight of 1,000-10,000) that can bind to immunoglobulin G.⁸ One group has presented evidence that the factor may be a C3a fraction of complement (anaphylatoxin) or a kinin-like molecule and hypothesized that the primary defect in CF may be related to a quantitative or qualitative deficiency of anaphylatoxin inhibitor, an enzyme similar to carboxypeptidase β . This hypothesis has been questioned by some investigators, but other evidence suggests that there are abnormalities in both complement-mediated cytotoxicity and plasma kallikrein or arginine-esterase activity in CF homozygotes and heterozygotes.

Other findings have linked the "factor" in saliva to α -amylase and have shown that the cilioinhibitory properties of saliva are eliminated by the addition of heparin.⁹ An important finding refers to the presence of a factor in sweat and saliva of CF individuals that inhibits sodium reabsorption in the rat parotid gland¹⁰ and in the perfused sweat gland of humans.¹¹ This would indicate that the so-called factor interferes with membrane function (and thus inhibits sodium transport), but the relationship between the sodium-inhibitory and the cilioinhibitory factors is not clear at present. Some characteristics of the various "factors" are summarized in Table 2.

Since motility and ATP hydrolysis have been shown to be tightly coupled by a specific ATPase (dynein) in beating cilia and flagella, experiments were done to study the effects of CF sera (from both homozygotes and heterozygotes) on ATP hydrolysis in various ciliary preparations from rabbit trachea and oyster gills. Thus, it was found that neither ATPase activity nor ATP utilization was affected in these preparations by CF serum and it was concluded that the CF factor does not act at the level of energy utilization.¹² Other studies using high speed cinemicrographic studies of rabbit ciliated epithelium revealed that CF serum has no

TABLE 2
CHARACTERISTICS OF CF "FACTORS"

Factor	Mol. Weight	Heat Lability	Net Charge	IGG Binding	IGG Needed	Activity in Heterozygotes	Present in
Oyster	1,000-10,000 (4500)	+	+	+	-	+	Serum, saliva, sweat, fibroblast media
Rabbit	1,000-10,000	+	+	+	+	+	Serum, saliva, sweat, fibroblast media
Mangos (Na ⁺ -inhibitory)	?	+	+	-	?	?	Sweat, saliva

effect on the rhythm and beat pattern of the tracheal cilia but, rather, has a marked cytolytic effect on the tracheal epithelial cells and cell junctions.¹³ A similar observation was made in our own studies on the effects of CF serum and saliva from reserpine treated rats on ciliary activity in the fresh water mussel.^{3, 6} In those instances in which these fluids produced a gradual dyskinesia and a slowing of the cilia, we observed the distortion of the gill epithelia, the detachment and ejection of cells and the accumulation of mucous debris on the gill surface.

These recent observations, plus additional experience with the bioassay by means of double blind studies, emphasize the fact that the bioassay methods are difficult to reproduce. Also, in the absence of an effect of CF serum on a potentially reproducible biochemical assay such as ATP utilization, there are no reliable methods presently available for identifying CF heterozygotes. The bioassay procedures have several disadvantages, indeed, and they are mostly qualitative, subjective and influenced by a number of variables. The search for reproducible quantitative analytic techniques should continue in the interest of developing a clinically useful screening test.

Although cultured leukocytes and skin fibroblasts from CF homozygotes and heterozygotes demonstrated metachromasia upon staining with toluidine blue, the reaction is observed in a number of diseases and cannot be used for heterozygote detection. A report that there was undermethylation of RNA in short-term lymphocyte cultures from CF individuals has not been confirmed, but it has spurred interest on the potential role of polyamines in the CF abnormality.¹⁴ These naturally occurring nitrogenous bases behave like polycations and have been implicated in processes of cell proliferation (RNA metabolism), membrane function and, perhaps, secretory activity. They are related in metabolic terms to the cyclic nucleotides, which can act as cellular messengers or signals in secretion. At the present time, however, there is no evidence of their role in regulating electrolyte transport or other membrane related functions in mammalian systems, and such relationships must be unequivocally established before polyamines can be linked to the CF abnormality.

CONCLUSIONS

Two areas of cystic fibrosis research in which advances have been made in recent years are discussed. The first refers to investigations that have improved our understanding of the normal mech-

Advances have been made in two areas of cystic fibrosis research at the University of Missouri School of Medicine. First, investigations have improved understanding of the normal mechanisms that underline the production of exocrine secretions. The second involves recent observations relating to important efforts to develop methods for heterozygote detection. The author concludes that efforts should be made to shift emphasis in research from qualitative bioassays to more reliable detection systems. Dr. Martinez, who is from the Department of Child Health, has received a research scholar award from the Cystic Fibrosis Foundation.

anisms that underline the production of exocrine secretions. This evidence has led to the concept that secretion is a complex sequence of events that involves (1) the production of humoral regulators; (2) the interaction between these regulators and specific receptors localized within the membrane of the secretory cells; (3) the initiation of a change in the configuration of these receptors which, in turn, triggers changes in the membrane and involves movement of ions in and out of the cell and the generation of a signal or signals inside the cell; and (4) the linking of these events with the extrusion of secretory products. Evidence is presented on how drugs can be used to selectively modify individual aspects of this complex sequence and on how this approach has led to the development, in our own laboratory, of an experimental animal model for CF. This model shows morphologic, ultrastructural and secretory changes in exocrine glands that resemble those of CF and has become a useful tool in the study of the secretory abnormality of CF. Most evidence at present indicates that the main defect in the experimental model involves the cell membrane, an important link in the secretory sequence, and its interaction with neurohumoral regulators.

The second area of discussion involves recent observations relating to efforts to develop methods for heterozygote detection. A large body of experimental evidence has accumulated in regard to bioassay procedures for the so-called CF factor or factors. These procedures involve the ability of CF fluids to inhibit ciliary activity in mammalian tracheal epithelium or in the gills of oysters and fresh water mussels.

In general, these methods suffer from serious

limitations and attempts to develop more quantitative and reproducible assays involving easily measured biochemical parameters have been unsuccessful so far. The chemical nature of the CF factor or factors is somewhat controversial and its relationship to specific enzyme systems is still unclear. It must be concluded that no reliable method is presently available for clinical screening in CF. Efforts should be made to shift the emphasis in research from the presently available qualitative bioassays to more reliable biochemical detection systems.

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Copperhead Bites

(Continued from page 172)

obstructed digital artery on the radial side of the finger while the ulnar side remained patent. Fasciotomy was not necessary. This moderately severe, Grade 1 bite was then treated with cleansing of the right hand and arm, elevation and cloxacillin. After several days, the bulla were debrided minimally. No more antivenin was administered. With this therapy, the patient made an uneventful recovery without permanent skin loss or functional impairment of the hand. She was discharged seven days after admission.

SUMMARY

The principle problem in the management of copperhead snakebites is the overuse of antivenin. Among venomous snakebites, copperhead bites are unique because antivenin is seldom indicated. Our more conservative therapy relies upon the guidelines of the Wood-Parrish grading system which has been proved to be safe and effective for ten years.

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Cerebral Revascularization for Stroke

STROKE is the third leading cause of death in the United States. More than 200,000 people per year die due to some form of cerebral vascular accident. It has been estimated that approximately 80% of strokes are due to arterial occlusive disease, including thrombosis and embolization. Angiographically, the responsible lesion can be identified in approximately 60% of patients; 40% will be extracranial in location and 20% will be intracranial in location.¹ The medical management of cerebral vascular disease has revolved around control of hypertension and use of anticoagulants and drugs reported to produce cerebral vasodilatation. The standard surgical management has included several types of extracranial revascularization procedures. These include the standard carotid thromboendarterectomy, bypass grafts involving the aortic arch and proximal carotid, vertebral or subclavian vessels and, occasionally, arterial resection with reanastomosis or vein grafting.

There exists, however, extracranial arterial disease which is not amenable to the conventional procedures, and certain intracranial lesions do not appear to be helped by medical management. These are well recognized. Extracranial lesions include chronic internal carotid artery occlusion, extensive stenotic arterial disease to the base of the skull, such as is seen in fibromuscular hypoplasia, and stenotic, occlusive or ulcerative arterial lesions of the carotid siphon. Intracranial lesions include stenotic or occlusive disease of the intracranial portion of the internal carotid artery. The presence of these lesions and the inability of conventional vascular techniques to be useful in the management of these lesions inspired the search for alternate forms of surgical therapy. This search has led to the development of a series of vascular techniques which have been labeled transcranial and intracranial cerebral revascularization.

The technical ability to successfully operate upon intracranial vessels was demonstrated as early as 1956² and several isolated cases of middle cerebral artery embolectomy have been reported. The development of specific microscopic techniques, however, added impetus to these investigations. The success that House enjoyed in the microsurgical approach to acoustic neurinomas³ prompted

Kurze to suggest in 1964 that these techniques might be helpful to neurological surgeons.⁴ In 1965, Pool demonstrated that these techniques could be successfully used intracranially in the surgical management of aneurysms.⁵ During this time, Jacobson and Donaghy were experimenting with microscopic techniques and vascular reconstructive surgery. This led their pupil, Yasargil, to actually develop the first and still most widely used procedure for transcranial revascularization.²

TRANSCRANIAL REVASCULARIZATION

The most popular procedure and the one developed by Yasargil is the anastomosis of a branch (usually the anterior branch) of the superficial temporal artery to a major cortical branch of the middle cerebral artery through a small, fronto-temporal craniotomy (Fig. 1). Technical success has been reported for the anastomosis of the occipital artery (a branch of the external carotid artery, also) to a major cortical branch of the middle cerebral artery. A few cases of transcranial carotid-to-carotid vein graft procedures have been done. This procedure utilizes a saphenous vein graft from the common carotid artery in the neck through a small craniotomy to the intracranial portion of the internal carotid artery (Fig. 2). It re-

The efficacy of extracranial arterial reconstruction procedures for cerebral vascular disease has been demonstrated in the past 20 years. It has become clear, however, that a large number of patients with cerebral vascular symptoms have extracranial or intracranial vascular disease for which conventional techniques are useless. As a result, transcranial revascularization procedures have developed and have proved effective in the management of certain of these patients. Dr. Watts is Professor of Surgery and Chief, Section of Neurosurgery at the University of Missouri Medical Center. This paper was presented in part at the 118th Annual Session of the Missouri State Medical Association in Kansas City on April 1-4.



Fig. 1 Anterior-posterior right brachial arteriogram demonstrating filling of the right middle cerebral artery circulation after transcranial superficial temporal-middle cerebral artery anastomosis (subtraction radiographic technique). The superficial temporal artery is seen transversing the right temporal area of the skull.



Fig. 2 (A) Bilateral filling of both middle cerebral arteries and anterior cerebral arteries via a transcranial carotid-carotid vein graft anastomosis. The vein graft, which

quires total occlusion of the internal carotid artery intracranially in addition to the posterior communicating artery and, occasionally, the anterior chorioidal artery.

Approximately 500 cases of transcranial revascularization have been performed in various institutions throughout the world. Technically, the procedure is quite successful. Yasargil reported a patent anastomosis in ten of his first 12 patients.² Austin has reported 35 patent anastomoses in his first 40 patients.⁶ Samson, Watts and Clark reported that 20 of 22 anastomoses have remained open.⁷ Anderson, Reichman and Davis⁸ reevaluated 19 of 26 patients who initially were known to have patent anastomoses. All anastomoses in the 19 patients remained patent after 27 months.

Less information is available concerning the clinical effectiveness of transcranial arterial revascularization. Austin has compared clinical improvement based upon a decreased number of transient ischemic attacks (TIAs) with cerebral blood flow studies.⁶ He evaluated 22 patients before and after transcranial revascularization.

He noted a mean cerebral blood flow on the uninvolved side of 75 ± 9 ml/100 gms brain. Preoperatively on the involved side, the mean cerebral



is seen in the region of the metal clips, is filled by a low common carotid artery injection. (B) The preoperative arteriogram shows an occluded right internal carotid artery with no intracranial filling.

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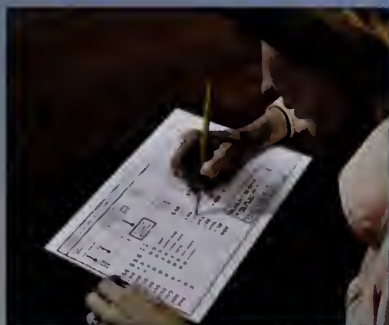
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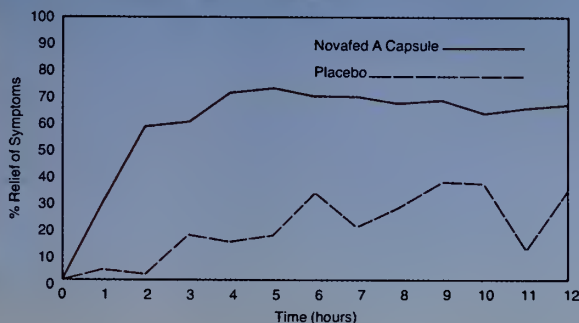
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(Please refer to the following page for bioavailability studies and prescribing information.)



Patients with severe pollen allergies were tested during hay fever season in a countryside environment and asked to rate severity of five different symptoms on a scale of 1 to 4.

Clinical Study: Degree of Relief from Itchy Eyes and Nose and Throat, Watery Eyes, Runny Nose*



*Unpublished data, Medical Department Files, Dow Pharmaceuticals, The Dow Chemical Company, Indianapolis, Indiana.



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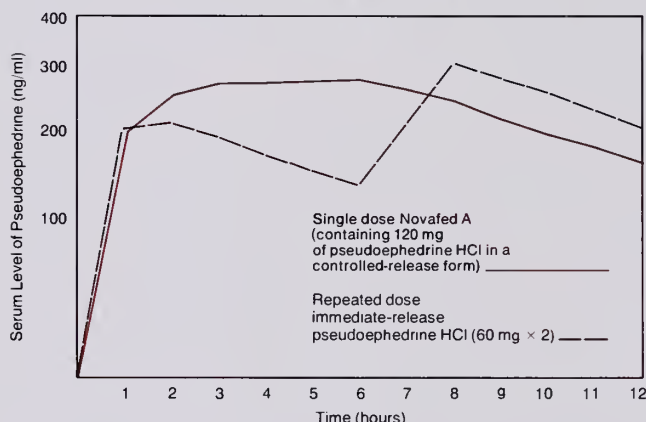
A bioavailability study confirmed that the sustained 12-hour action of Novafed A was comparable to that of immediate-release medication taken at 6-hour intervals.

The chart on the left shows the serum levels of pseudoephedrine. Initial serum levels following one Novafed A Capsule were comparable to those following a single dose of 60 mg. pseudoephedrine hydrochloride in an immediate-release form. Serum levels of pseudoephedrine over a 12-hour period following a single dose of Novafed A were also comparable to

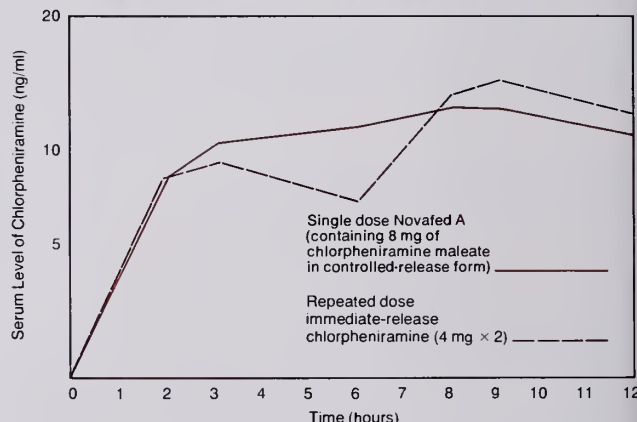
those obtained by an immediate-release form taken every 6 hours.

The chart at the right shows the serum levels of chlorpheniramine. Initial serum levels following one Novafed A Capsule were comparable to those following a single dose of 4 mg. chlorpheniramine maleate in an immediate-release form. Serum levels of chlorpheniramine over a 12-hour period following a single dose of Novafed A were also comparable to those obtained by an immediate-release form taken every 6 hours.

Comparison of Mean Serum Levels of Pseudoephedrine Following Novafed A and an Immediate-Release Reference Formulation*



Comparison of Mean Serum Levels of Chlorpheniramine Following Novafed A and an Immediate-Release Reference Formulation*



*Unpublished data, Medical Department Files, Dow Pharmaceuticals, The Dow Chemical Company, Indianapolis, Indiana.

DESCRIPTION: Each NOVAFED A capsule contains 120 mg. of pseudoephedrine hydrochloride and 8 mg. of chlorpheniramine maleate. The specially formulated pellets in each capsule are designed to provide continuous therapeutic effect for about 12 hours. Nearly one-half of the active ingredients is released soon after administration and the remainder is released slowly over the remaining time period.

ACTIONS: NOVAFED A combines the action of a nasal decongestant, pseudoephedrine hydrochloride, and an antihistamine, chlorpheniramine maleate. These ingredients are combined to provide prompt and sustained nasal and upper respiratory decongestant and antihistaminic action.

INDICATIONS: NOVAFED A is indicated for the relief of nasal congestion and eustachian tube congestion associated with the common cold, sinusitis and acute upper respiratory infections. It is also indicated for perennial and seasonal allergic rhinitis, vasomotor rhinitis, allergic conjunctivitis due to inhalant allergens and foods and for mild, uncomplicated allergic skin manifestations of urticaria and angioedema. Decongestants in combination with antihistamines have been used for many years to relieve eustachian tube congestion associated with acute eustachian salpingitis, aerotitis media, acute otitis media and serous otitis media. NOVAFED A may be given concurrently, when indicated, with analgesics and antibiotics.

CONTRAINDICATIONS: Sympathomimetic amines are contraindicated in patients with severe hypertension, severe coronary artery disease, and in patients on MAO inhibitor therapy. Antihistamines are contraindicated in patients with narrow-angle glaucoma, urinary retention, peptic ulcer, during an asthmatic attack, and in patients receiving MAO inhibitors.

Children under 12: NOVAFED A controlled-release capsules should not be used in children less than 12 years of age.

Nursing Mothers: Pseudoephedrine is contraindicated in nursing mothers because of the higher than usual risk for infants from sympathomimetic amines.

Hypersensitivity: This drug is contraindicated in patients with hypersensitivity or idiosyncrasy to sympathomimetic amines or antihistamines. Patient idiosyncrasy to adrenergic agents may be manifested by insomnia, dizziness, weakness, tremor or arrhythmias.

WARNINGS: Sympathomimetic amines should be used judiciously and sparingly in patients with hypertension, diabetes mellitus, ischemic heart disease, increased intraocular pressure, hyperthyroidism, or prostatic hypertrophy. Sympathomimetics may produce central nervous system stimulation and convulsions or cardiovascular collapse with accompanying hypotension.

Antihistamines may impair mental and physical abilities required for the performance of potentially hazardous tasks, such as driving a vehicle or operating machinery, and mental alertness in children. Chlorpheniramine maleate has an atropine-like action and should be used with caution in patients with increased intraocular pressure, hyperthyroidism, cardiovascular disease, hypertension or in patients with a history of bronchial asthma.

Do not exceed recommended dosage.

Use in Pregnancy: The safety of pseudoephedrine for use during pregnancy has not been established.

Use in Elderly: The elderly (60 years and older) are more likely to have adverse reaction to sympathomimetics. Overdosage of sympathomimetics in this age group may cause hallucinations, convulsions, CNS depression, and death. Therefore, safe use of a short-acting sympathomimetic should be demonstrated in the individual elderly patient before considering the use of a sustained-action formulation.

PRECAUTIONS: This drug should be used with caution in patients with diabetes, hypertension, cardiovascular disease and hyperreactivity to epinephrine. The antihistaminic may cause drowsiness and ambulatory patients who operate machinery or motor vehicles should be cautioned accordingly.

ADVERSE REACTIONS: Hyperreactive individuals may display epinephrine-like reactions such as tachycardia, palpitations, headache, dizziness, or nausea. Patients sensitive to antihistamines may experience mild sedation.

Sympathomimetic drugs have been associated with certain untoward reactions including fear, anxiety, tenseness, restlessness, tremor, weakness, pallor, respiratory difficulty, dysuria, insomnia, hallucinations, convulsions, CNS depression, arrhythmias, and cardiovascular collapse with hypotension.

Possible side effects of antihistamines are drowsiness, restlessness, dizziness, weakness, dry mouth, anorexia, nausea, headache and nervousness, blurring of vision, heartburn, dysuria and very rarely, dermatitis.

DRUG INTERACTIONS: MAO inhibitors and beta adrenergic blockers increase the effect of sympathomimetics. Sympathomimetics may reduce the antihypertensive effects of methyldopa, mecamylamine, reserpine and veratrum alkaloids. Concomitant use of antihistamines with alcohol, tricyclic antidepressants, barbiturates and other central nervous system depressants may have an additive effect.

DOSE AND ADMINISTRATION: One capsule every 12 hours. Do not give to children under 12 years of age.

CAUTION: Federal law prohibits dispensing without prescription.

HOW SUPPLIED: NOVAFED A is supplied in red and orange colored hard gelatin capsules, monogrammed with the Dow diamond followed by the number 109, in bottles of 100.



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Specialists in cough and cold care

blood flow was 53 ± 13 ml/100 gms. Postoperatively, the cerebral blood flow was 64 ± 15 ml/100 gms ($P = 0.02$). Cerebral blood flow was measured by the intravenous bolus injection method with the use of ^{133}Xe and was calculated from the Fick equation. He found that 83% of the patients had a good or excellent result in terms of reduction of frequency of TIAs. This correlated well with a significant increase in cerebral blood flow as measured by this technique.

Anderson, Reichman and Davis reported that clinical improvement in their 19 patients with long-term evidence of anastomosis patency varied directly with the degree of middle cerebral artery filling via the anastomosis.⁸ They noted that the best results occurred in patients having repeated transient ischemic attacks without fixed neurological deficit prior to surgery. They also noted that two of five patients showed an increase of flow via the anastomosis when a second follow-up angiogram was compared with an early postoperative angiogram. Other authors have reported general improvement of a preoperative, fixed focal deficit or improvement in general mentation following these procedures.

Because of the relatively few patients in whom these procedures have been done and the short period of general follow-up evaluation, definite indications for surgery are still evolving. A major indication is found in the patient with frequent transient ischemic attacks involving a specific hemisphere which is thought to be secondary to stenotic or obstructive proximal arterial disease not amenable to conventional surgical approach. This would include disease of the internal carotid artery or horizontal portion of the middle cerebral artery. In addition to the ischemic attacks, these patients should have angiographic evidence of poor collateral flow into the involved hemisphere and, when possible, cerebral blood flow data documenting decreased blood flow. At present, no specific transcranial revascularization procedures for lesions of the anterior cerebral or posterior cerebral arteries have been developed.

Other indications have been postulated, but the number of patients handled as a result of these indications is too small at this time to evaluate the results. Included are patients with chronic cavernous sinus fistulae and intracranial aneurysms which in themselves incorporate a major arterial branch. Patients with major distal extracranial or proximal intracranial disease in whom major peripheral arterial surgery is being considered may be candidates for prophylactic surgery.

INTRACRANIAL REVASCULARIZATION

Intracranial revascularization procedures are still in an investigative stage. Isolated intracranial thromboendarterectomy and embolectomy have been reported, but no large series from which meaningful data can be extracted has been published. Intracranial bypass grafting and shunting procedures are being evaluated in laboratories at this time.

SUMMARY

The efficacy of extracranial arterial reconstruction procedures for cerebral vascular disease has been demonstrated in the past 20 years. It has become clear, however, that a large number of patients with cerebral vascular symptoms have extracranial or intracranial vascular disease for which conventional techniques are useless. As a result, transcranial revascularization procedures have developed and have proved effective in the management of certain of these patients.

The standard surgical procedure involves anastomosing a branch of the external carotid artery system (either the superficial temporal artery or the occipital artery) to a major cortical branch of the middle cerebral artery. This permits shunting of blood intracranially around stenotic or occlusive disease of the internal carotid artery and proximal middle cerebral artery. A technique utilizing a saphenous vein graft to construct a vascular shunt from the common carotid artery transcranially to the intracranial portion of the internal carotid artery has been used but is less popular. It requires total occlusion of the internal carotid artery and occasionally the anterior chorioidal artery. Clinical, laboratory and radiographic evidence of the success of these procedures exists.

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Control of Phosphorus and Calcium in Hemodialysis

DISORDERED METABOLISM of calcium, phosphorus and parathyroid hormone is one of the most important problems in patients on "chronic" hemodialysis. It is manifested by an increased serum phosphorus (P), decreased serum calcium (Ca), increased serum parathyroid hormone (PTH) and results in renal osteodystrophy and soft tissue calcification. Its pathogenesis is complex but mainly involves a decreased excretion of P and a decreased absorption of Ca. Several therapeutic measures are used to combat these problems. Hyperphosphatemia can be controlled by P restriction and the use of P binding aluminum salts.¹ The negative calcium balance caused by the reduced Ca absorption can be treated by increasing the Ca content of the dialysis bath,² giving vitamin D analogs³ or increasing the dietary Ca.⁴ In January, 1973, a prospective study was initiated to determine the effectiveness of maximal utilization of these therapeutic methods.

METHODS

All patients with chronic renal disease who were on hemodialysis at William Beaumont Army Medical Center as of Jan. 1, 1973 were studied. A total of 11 patients, seven women and four men, were included with the clinical diagnosis of renal disease being chronic glomerulonephritis in five pa-

tients, nephrosclerosis secondary to hypertension in two patients and one patient each with diabetes, systemic lupus erythematosus, polycystic kidney disease and rapidly progressive glomerulonephritis. Initially, nine patients were dialyzed in the hospital and two patients were dialyzed at home. During the study, two of the hospital patients were placed on home dialysis and one of the home dialysis patients was transferred back to hospital dialysis. All patients were dialyzed three times per week using Cordis Dow hollow fiber kidneys with a single pass dialysate system. All dialysates were prepared using deionized water and, unless otherwise stated, contained 6.5 mg% calcium and 1 mEq/l magnesium.

Patients' diets were analyzed for calcium and phosphorus content using a three-day, recorded dietary history. If the diet contained more than 800 mg of phosphorus, they were instructed on a diet containing less than this amount. Calcium supplement was given as calcium carbonate in order to provide a total daily calcium intake of between 1 gm and 2 gm. Aluminum hydroxide or aluminum carbonate was given in amounts sufficient to keep the predialysis serum phosphorus between 3.0 mg% and 5.0 mg%.

All chemistries were done immediately prior to dialysis. Serum calcium, phosphorus and alkaline phosphatase were determined weekly in the hospital clinical laboratory by autoanalytic methods. The normal ranges in our laboratory are Ca, 8.5-11.0 mg%; P, 2.5-4.5 mg%; alkaline phosphatase, 25-100 units. Serum PTH was done by radioimmunoassay every three months in the laboratory of Dr. Charles Hawker.⁵ The normal range by this method is 160 pg/ml to 350 pg/ml. Serum ionized calcium (Ca++) was determined using a flow through calcium ion sensitive electrode.⁶ Roentgenograms of the skull, chest and hands were performed every three months and interpreted by a single radiologist without knowledge of the patients' clinical condition except that they were on "chronic" hemodialysis. Roentgenograms of the hands were taken using Kodak M-54 industrial

This study was initiated to determine the effectiveness of therapeutic methods on disordered metabolism of calcium, phosphorus and parathyroid hormone in patients on "chronic" hemodialysis. It was demonstrated that with careful use of phosphate-binding antacids, mild dietary restrictions and orally-administered calcium supplementation, the majority of these patients can have normal pre-dialysis levels. Dr. Van Stone is from the Department of Medicine, University of Missouri School of Medicine and the Department of Medicine, William Beaumont Army Medical Center, El Paso, Tex.

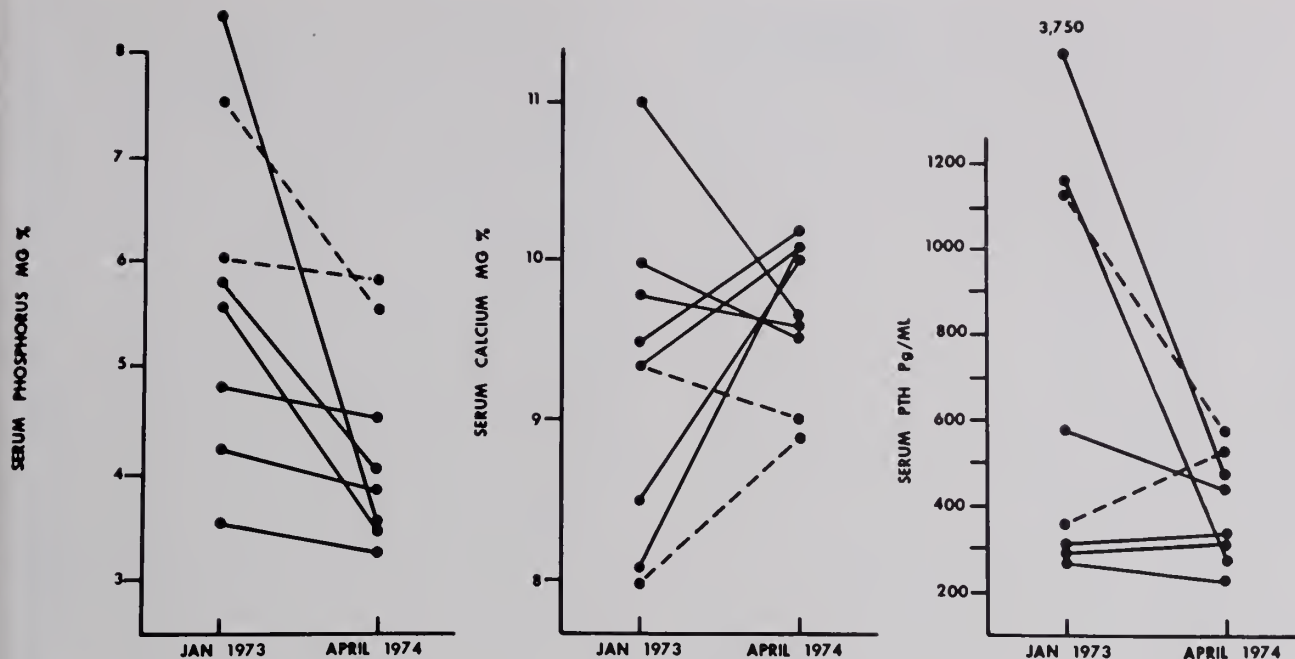


Fig. 1 Changes in serum phosphorus, calcium and PTH in the eight patients finishing study. Broken lines refer to patients whose phosphorus was not maintained at normal.

grade film in an attempt to accentuate trabecular changes.⁷

RESULTS

Of the 11 patients entering the study, eight are still on dialysis; two received renal homografts, one of whom subsequently died; and one died while on dialysis.

Phosphorus: At the beginning of the study, only three of 11 patients had an average pre-dialysis serum P below 5 mg% with two averaging above 7 mg% (Fig. 1). For this reason, intensive efforts were made to normalize the serum phosphorus. The patients were initially vigorously encouraged by the physicians, nurses and technicians to take their previously prescribed aluminum salts. The dose was then adjusted weekly in an attempt to keep the pre-dialysis P between 3 mg% and 5 mg%. It was found that the dosage could most effectively be adjusted by the dialysis nurses. By the fourth month of study, only two patients had serum P above 6.0 mg% and six of the 11 patients had normal serum P levels. At the end of the study, no patient had any serum P above 6 mg% and six of the eight patients finishing the study had consistently normal serum P (Fig. 1).

Calcium: Total serum Ca at the beginning of the study averaged 9.1 mg% with seven of 11 patients having values of below 9.5 mg% (Fig. 1). At the end of the study, the average Ca was 9.6 mg% and none of the patients with normal serum P had a

serum calcium below 9.5 mg% (Fig. 1). We have had no episodes of hypercalcemia (serum Ca greater than 11.0 mg%) in any of our patients. Most patients had a spontaneous rise in serum Ca with normalization of serum P. Despite persistently normal P, however, two patients had serum Ca below 8.5 mg%. In these patients, the calcium content of the dialysis bath was increased to 8 mg% for two months with no change in serum Ca. The bath Ca was then changed back to 6.5 mg%, and 0.5 mg of dihydrotachysterol was given for two months. Again, there was no change in the serum Ca. After discontinuation of dihydrotachysterol, the patients' calcium carbonate was increased to 8.5 gm per day (3.3 gm of Ca). Within two months, both of these patients' serum Ca was above 10.0 mg%. In one patient, this rise in serum Ca was associated with a precipitous fall in serum P which persisted despite discontinuance of aluminum hydroxide. For the last two months, this patient has taken 430 mg of supplemental phosphorus and her serum P remains in a low normal range.

Parathyroid Hormone: Serum PTH averaged 960 pg/ml (range 260-3,750) at the beginning of the study and fell to an average of 370 pg/ml (range 225-590) at the end of the study (Fig. 1). Six patients had normal serum PTH at the start of the study. These remained normal except for one patient whose serum P remained elevated and whose serum PTH rose from 350 pg/ml to 450 pg/ml. All of the five patients with an initial increased

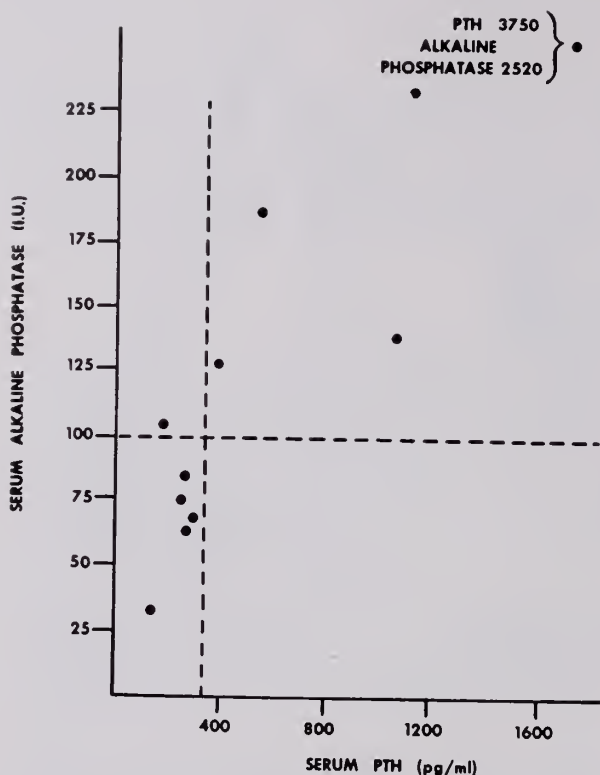


Fig. 2 Relationship of serum PTH to serum ionized calcium. Horizontal broken line is the upper limit of normal for serum PTH. Vertical broken line is the lower limit of normal for serum Ca^{++} .

serum PTH had a significant fall in PTH, although only one fell into the normal range. Elevated serum PTH correlated with abnormal bone roentgenograms. The six patients with normal serum PTH at the start of the study had no radiologic evidence of bone disease, whereas three of the five patients with increased serum PTH had evidence of either subperiosteal resorption or demineralization. No significant changes have occurred in the bone roentgenograms of the normophosphatemic patients' x-rays during the period of study. One patient, whose serum P consistently ranged between 5 mg% and 6 mg%, had progression of bone disease.

PTH levels also correlated well with levels of serum alkaline phosphatase ($r = .95$, $p < .01$) (Fig. 2). Only one of six patients with normal PTH had an increased alkaline phosphatase, while all five patients with increased PTH had elevated serum alkaline phosphatase. Serum PTH was not related to the length of time on dialysis since it was elevated in two of four patients who were dialyzed for more than two years and three of seven patients who had been on dialysis for less than two years.

Ionized Calcium: At the beginning of the study, serum ionized calcium (Ca^{++}) was measured weekly. Because of the technical difficulty and

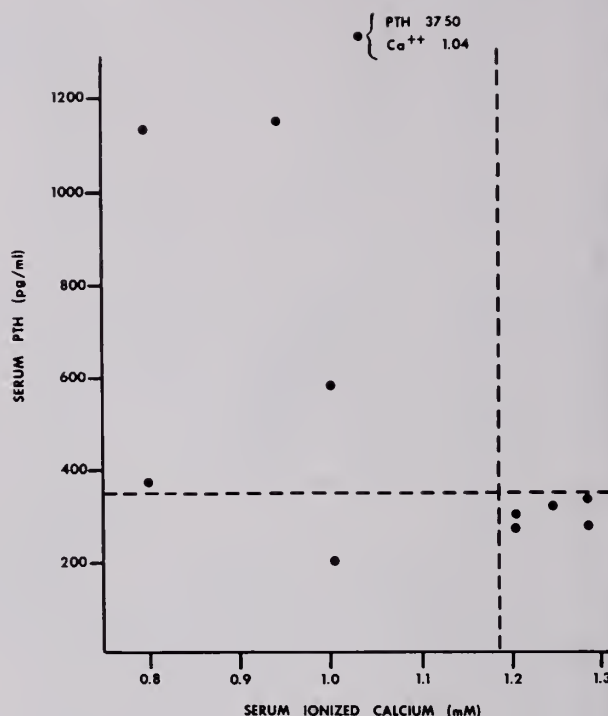


Fig. 3 Relationship of serum alkaline phosphatase to serum PTH. Horizontal broken line is the upper limit of normal for serum alkaline phosphatase and vertical broken line is the upper limit for serum PTH.

time required to perform this analysis, it was discontinued after six months. As can be seen in Fig. 3, serum PTH levels varied inversely with serum Ca^{++} levels. Only one patient with depressed ionized calcium had a normal serum PTH. This patient subsequently died. An autopsy revealed only one parathyroid gland and it was markedly hyperplastic. No patient with serum P greater than 5 mg% had a normal Ca^{++} . The majority of patients with a normal Ca^{++} had normal serum PTH and marked elevation of PTH did not occur if the Ca^{++} was normal.

DISCUSSION

The control of serum Ca, P and PTH is of the utmost importance to patients on "chronic" hemodialysis. If not controlled, severe renal osteodystrophy, extensive soft tissue calcification and vascular calcification can result, leading to bone pain, multiple pathologic fractures and ischemic necrosis.⁸⁻¹²

The pathogenesis of disordered mineral metabolism in uremia is very complex. Slatapolsky and Bricker have suggested that P retention is of prime importance.¹ Decreased P excretion in chronic renal disease results in slight elevations of serum

P which in turn lowers Ca^{++} and stimulates PTH secretion. Since PTH increases P excretion by reducing tubular reabsorption, serum P levels may then return to normal. For this reason, elevated PTH levels are found before a measureable increase in serum phosphorus can be demonstrated and occurs when the glomerular filtration rate falls to between 40-80/ml/min.^{13, 14} Slatopolsky has shown that in dogs, this increase in serum PTH occurs when renal function is decreased and can be completely prevented by restricting phosphorus intake and emphasizes the importance of maintaining normal serum P concentration in patients with chronic renal insufficiency.¹

We have found that serum P usually can be kept normal with the use of mild P restriction and the administration of P binding aluminum salts. A major problem is failure of the patient to take the prescribed medication. Aluminum carbonate seems to be better tolerated than aluminum hydroxide. It has a higher aluminum content (47% vs 35%), and our patients claim it causes less constipation. We have used up to 6 gms of aluminum carbonate per day in order to reduce severe hyperphosphatemia. After the serum P has been normal for several weeks, we usually have been able to lower the dose to 1 gm to 2 gm per day. Six of the eight patients finishing the study and nine of the 11 patients presently on hemodialysis in our unit have their serum P between 3 mg% and 5 mg% at least 90% of the time.

Our study supports the hypothesis that P control is of prime importance. In seven of the nine study patients in whom we were able to control serum P, the serum Ca spontaneously rose to greater than 9.5 mg% and PTH values fell to either normal or near normal levels by the end of the study. The two patients who remained hyperphosphatemic have continued to have high levels of PTH, and one of these patients has shown radiologic evidence of progressive bone disease.

Calcium absorption is frequently depressed in renal failure.¹⁵ Recent studies have shown that this most likely is due to the inability of the kidneys to produce the active form of vitamin D—1,25 dihydroxycholecalciferol.¹⁶ This decreased absorption is most evident on a low-calcium diet, as uremic patients absorb the same amount of calcium as controls placed on a high calcium intake.^{17, 18} It is possible that on higher calcium intakes, most calcium is absorbed by simple ionic diffusion, independent of 1,25 dihydroxycholecalciferol.¹⁹ Because of anorexia and phosphate restriction, most patients with advanced renal failure ingest a low

calcium-containing diet. The average daily dietary calcium intake in our patients is 475 mg with a range of 237 mg to 875 mg. This is similar to other reported series.^{17, 18} All of our patients received supplemental calcium carbonate to supply a daily calcium intake of between 1 gm and 2 gms. This, plus phosphate control, was sufficient to raise the serum calcium above 9.5 mg% and keep serum PTH normal or near normal in most of our patients. However, two of our patients remained hypocalcemic with markedly elevated PTH values in spite of consistently normal serum P.

Neither increasing the dialysis bath calcium, as suggested by Goldsmith,² nor administering dihydrotachysterol, as suggested by Kaye,³ raised the serum calcium level in these patients. After receiving 8.5 gms of calcium carbonate per day orally for two months, both patients' serum calcium levels were greater than 10 mg%. Within four months, their serum PTH levels had fallen from extremely high levels to almost within the normal range.

With normalization of serum calcium, one of these patients developed hypophosphatemia which persisted in spite of the discontinuation of phosphate binders. She requires 0.5 gm of phosphorus supplementation per day to maintain a low normal serum P. The other patient has required much less aluminum carbonate to maintain the serum P normal. This suggests that these patients are in positive phosphorus balance. The fact that their serum $\text{Ca} \times \text{P}$ product is below 40 and their lack of radiographic soft tissue calcification suggests that the phosphorus is being deposited in bone.

From this study, we are unable to evaluate the relative therapeutic effectiveness of vitamin D, high dialysate calcium and increased calcium supplementation administered orally. Calcium balance studies would be needed. It is probable that if either the high calcium dialysate or dihydrotachysterol were employed for a longer period of time, an increased serum calcium and reduction of PTH would have resulted. Our study does show, however, that even in patients with hypocalcemia and markedly elevated PTH, large calcium oral intakes can normalize both calcium and PTH.

Parathyroid hormone is present in human sera in more than one molecular species.²⁰ It is secreted from the parathyroid gland with a molecular weight of 9,500 and is degraded to smaller peptides. A substantial fraction of PTH in the peripheral circulation has a molecular weight (MW) of approximately 7,000.²⁰ Different anti-PTH anti-sera have varying affinities for the individual species. The

anti-serum for our assay recognizes mainly intact hormone. Different results may well have occurred if an anti-serum sensitive to the 7,000 MW species was used. Goldsmith has shown that in uremic patients, the 9,500 MW species is more easily suppressed than the 7,000 MW species.²¹ The excellent correlation between elevated PTH values by our anti-sera with radiographic evidence of bone disease and elevated serum alkaline phosphatase suggests it is important to keep the 9,500 MW species at near normal serum concentrations.

The main stimulus for the secretion of PTH is the serum level of ionized calcium.²² Total serum calcium determinations are affected by variables such as serum albumin, pH, bicarbonate and citrate.²³ Moore has shown that in the general population, total serum calcium is determined primarily by serum albumin rather than by ionized calcium.²³ Since hemodialysis patients have abnormalities of serum albumin, pH, bicarbonate and citrate, it would be more efficacious to monitor serum ionized calcium than total serum calcium. In our patients, serum PTH, serum alkaline phosphatase and radiographic evidence of bone disease all correlated better with serum ionized calcium than total serum calcium. At the present time, unfortunately, the technical difficulties involved in determining serum ionized calcium prevent its routine use.

Hill *et al* have recently shown in a short-term study that decreasing serum P by the administration of aluminum hydroxide lowers serum PTH.²⁴ However, the mean serum PTH level remained greatly elevated. There are several possible explanations for this difference from the present report. Hill used a fixed dose of phosphate-binding antacid while the amount administered to our patients was varied on the basis of serum P. In the majority of our patients, serum P was maintained in the normal range whereas many of his patients remained hyperphosphatemic. It appears more likely, however, that our patients' serum PTH levels are lower because the serum P has been controlled for more than one year compared to the five-week study period of the other report. In some of our patients, serum PTH has continued to fall after 15 months of P control.

We have demonstrated that with careful use of phosphate-binding antacids, mild dietary restrictions and oral calcium supplementation, the majority of hemodialysis patients can have normal predialysis serum calcium, phosphorus and parathy-

roid hormone levels. A longer period of study will be needed to determine if this management will prevent the development of renal osteodystrophy and soft tissue calcification.

Acknowledgment: The author wishes to express his appreciation to the personnel of the Hemodialysis Unit and the Medical Research and Development Service, William Beaumont Army Medical Center, for support of this project.

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President's Message

Nine years ago when I was installed as President of the St. Louis Medical Society, I, among other things, commented that with the advent of Medicare, the first step was being taken into socialized medicine. Two or three months later, the Society was visited by two gentlemen from the Baltimore headquarters for Medicare to explain to the members of the St. Louis Medical Society how Medicare worked or was supposed to work. They were very careful to take me aside and tell me that during the flight to St. Louis, they had read my installation speech . . . and that my fears about Medicare being the first step into socialized medicine were completely groundless.

I wonder what those two gentlemen think today if they think at all. There is no doubt that my first impression was correct and that Medicare was the first step into socialized medicine. But what kind of socialized medicine are we going to have? There are many plans being proposed—from the Kennedy-, Meany- or Russian-type to the much more benign kind suggested by the AMA. In my own opinion, all are unnecessary. In my opinion, socialization of anything is unnecessary, even that of the news media or the legal profession, although these would be more beneficial to our country than socialized medicine.

In the meantime, we are still faced with Medicare and the administrators of Medicare, which was fathered by HEW. To quote Neil J. Chayet, J.D. in the *New England Journal of Medicine* of March 4, 1976, "Although the ridiculous utilization-review regulations may have been drafted by a lawyer somewhere in the bowels of the Social Security Administration, the call for increased regulation of physicians has come . . . from the press and from the organs of government. . . . The result is that the very profession of medicine, which should solve its own problems, is the most heavily regulated profession of all."

If this is true, and I believe it is, what would things be like under socialized medicine?



Max S. Franklin, M.D.

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Woman's Auxiliary

*"Our deeds determine us as much as
we determine our deeds."*

—GEORGE ELIOT, 1819-1880

President Gerald R. Ford proclaimed the week of April 4-10 as National Rural Health Week in accordance with the American Revolution Bicentennial Administration's *Horizon '76* theme. The goal of the AMA, AMA Auxiliary and 20 cooperating organizations is to motivate rural citizens to become more health conscious and to further rural-urban cooperation in health care issues.

This week signaled the start of action-oriented programs to center around such topics as physician recruitment, emergency medical services, health education, development of health care facilities and community organizations for development of rural health care delivery systems.

When Dr. David Mathews, Secretary of HEW, spoke before the AMA Leadership Conference in January, he stated that "rural health problems are not rural only, they are universal." The theme, "Better Health—America's Wealth," connotes new focus on the quality care for which the medical profession strives and emphasizes the need for speeding the accomplishment of specific local projects to improve personal and community health. To this end, your MSMA Auxiliary continues to be actively involved by identifying new concerns, establishing responsive programs and representing medicine in a positive and progressive way.



Mrs. George P. Wilson
President

The AMA Auxiliary will share the community health programs of its Project Bank with other organizations. In Missouri, the MSMA Auxiliary will continue to identify community needs and translate these into effective action. We recognized the benefits of participating in National Rural Health Week, knowing they will last long after 1976 and into our nation's third century.

We in the Auxiliary are pledged to extend and promote the aims of the Missouri State Medical Association in its program for the advancement of medicine and public health. Our effectiveness can be as great as the encouragement you provide. In turn, we have the ability to provide for you a valuable asset—the hands, hearts and minds of 1,700 women who believe in you and that which you represent.

As we begin a new Auxiliary year and celebrate America's "coming of age," we reaffirm to the Association our dedication of purpose and will strive to achieve those goals which demonstrate the best that American medicine has to offer.

EDITORIAL

A MOTTO FOR TOMORROW: 'PHYSICIAN, SELL THYSELF'

By JOAN BECK

Dear Dr. . . . (Name to be filled in by automatic typing equipment from list of physicians purchased from the American Medical Association):

As you know, the Federal Trade Commission says physicians should be allowed to advertise, just as other businesses do. The AMA is opposing such a change on the grounds it violates traditional medical ethics. While a hearing on the issue is not scheduled until Feb. 9 and may be followed by appeals, a progressive physician like yourself can certainly see the advantages of being the first in your community to use proven promotional techniques for letting prospective patients know what a great person and terrific doctor you really are.

That's where we at Acme Ads come in. We can offer you a full range of advertising services—tv spots, newspaper ads, radio commercials, billboards, car cards, bumper stickers, sandwich boards—geared to your specialty and sure to increase your business.

Here's a sampling of what we can do for you, Dr. (Name to be filled in by automatic typing equipment).

You know those radio commercials for automobile transmission repairs? How would you like to hear yourself on the air with something along these lines—"I've serviced 600 stomach ulcers. I have to be good." You could add, "In most cases patients who are in my office by 8 a.m. are out by 5." (We recommend a second voice to echo "In most cases" just to keep the truth-in-advertising boys off your back.)

Or perhaps you feel a little more modest might be better for starters, like "I'm only No. 2 in gastroenterology, so I try harder." Or the voice of a nurse claiming "Nine out of 10 patients get fast, fast, fast relief from Dr. . . ."

For a man of your professional stature, Dr. . . . , television is probably more appropriate than radio, despite the extra cost. It's all tax deductible, of course, and amounts to only a small additional charge—when prorated among your entire patient load.

If you want to go the sincere route, you might like an approach chosen by many of the politicians for whom we've done spots. Just picture a tight head shot of yourself, Dr. . . . , with a voice-over saying sincerely, "In your heart, you know he's right about your heart." Or perhaps a sunny garden scene with a little girl running up to give her elderly grandfather a flower and the

voice-over urging, "All the way with (initials to be filled in by automatic typing equipment)."

If you have a group practice, you and one of your colleagues could put on operating room gowns, one with "Pride" and one with "Price" stenciled across the chest. Pride could say to Price, "What kind of special are we offering this week?" Price could hold up a patient's chart with "Appendectomy, \$395.75" written across it. And Pride could grin slyly and say with a chuckle, "Well, you really cut that one to the bone, Price."

As you may know, we already do some of the print ads directed at you in your medical journals. Many of these techniques will now be available for you, yourself to use on your patients. For example, wouldn't you like an approach based on ads now running in medical magazines showing an old woman watering her garden with the headline, "Gladys is doing well on. . . ." You could simply switch it to "Henry is doing well with Dr. . . ." We can only hope the Federal Drug Administration won't order physicians to print all of the contraindications and warnings it now requires drug manufacturers to add to print ads.

Testimonials can also be effective for you, Dr. . . . We have a large stable of celebrities available, including three entire professional hockey teams (ideal for surgeons), half of the NFL quarterbacks (perfect for an orthopedist), two sets of quadruplets (nice touch for a pediatrician), celebrity smokers (thoracic surgeons), several aging Hollywood stars (geriatricians) and beautiful models (dermatologists).

This letter is much too short to tell you about still other promotional possibilities: Spots on Saturday morning tv programs suggesting, "Hey, kids, tell your Mommy to take you to Dr. . . . He never gives shots." Advertising messages towed by airplanes over beaches reading "If you get sunburn, call Dr. . . ." Bumper stickers advising, "If you get too close and crash, call Dr. . . ."

Our representative will call on you shortly in person.

Respectfully,
Acme Ads

St. Louis Globe-Democrat
Dec. 31, 1975
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**Give now to
your student loan fund!**



Send a Generous Contribution to
Missouri State Medical Foundation
Sponsored by the MSMA

County Society News

FIRST DISTRICT

COUNCILOR

JOHN N. MARTIN, M.D., ST. JOSEPH

BUCHANAN COUNTY MEDICAL SOCIETY

The March 3 meeting of the Buchanan County Medical Society was held at the Moila Club in St. Joseph.

Thirty members attended the all-business meeting which is customarily held prior to the MSMA Annual Session.

Dr. Robert W. Kieber discussed a citywide program of immunization clinics to be held on March 19-20. The clinics are designed to increase the number of school children having recommended immunizations.

The Society Auxiliary displayed two paintings which it is presenting to the two local medical hospitals in honor of Doctors' Day.

First District Councilor John N. Martin reported on the status of various bills pertaining to the practice of medicine which are in the Missouri Legislature. He urged and received indicated support in contacting legislators regarding pending bills, particularly those pertaining to malpractice.

Dr. Robert L. Corder, Jr., who is associated with Dr. Ernest E. Wadlow and Dr. Edmund W. Kline in the practice of obstetrics and gynecology, was elected to provisional membership.

Various resolutions which are to be acted upon at the MSMA Annual Session were outlined for the membership and discussed.

CARL K. NESS, M.D., *Secretary*

GRAND RIVER MEDICAL SOCIETY

The Grand River Medical Society met on March 11 at the Chillicothe Country Club.

Herbert Craig, M.D., orthopedic surgeon from the University of Missouri-Columbia School of Medicine, spoke on "New Advances in Prosthetic Devices." His presentation was well received and was followed by a lively question-and-answer session.

Nine members attended the meeting and continued the informal discussion about a new set of bylaws for the Society.

WILLIAM L. FAIR, M.D., *Secretary*

NINTH DISTRICT

COUNCILOR

CLAUDE W. COOPER, M.D., THAYER

MID-MISSOURI COUNTY MEDICAL SOCIETY

The Mid-Missouri County Medical Society met at the Manor Inn in Rolla on March 12.

Members present were Drs. James D. Butts, Frank A. Elders, E. A. Stricker, Ted P. Smith, Eugene F. White, Pichat Pojanasomboon, Earl E. Feind, Harry N. Grannemann and Paul W. Pendell. Guests included Dr. Claude W. Cooper from Thayer, Don Wilson, MSMA Field Secretary, from Jefferson City, Dr. Miller from St. Louis and Dr. Winter, who is working with Dr. Stricker.

Dr. Elders opened the meeting. Dr. White announced the program and introduced Dr. Cooper, Councilor for the Ninth District, who gave a brief talk about medical society activities on the state level. Mr. Wilson explained Senate Bills #470, #471 and #472. He also discussed House Bills #1306 through #1309 and #1312. He reported that Missouri State Medical Insurance, Inc. has 510 members.

Dr. Feind reported on the current status of PSRO and Dr. White reported on the Area 5 HSA.

EUGENE F. WHITE, M.D., *Secretary*

The advertising in MISSOURI MEDICINE keeps you informed and helps pay the publishing costs. When the local representative calls, tell him you read his company's ad in your journal.



Taylor Brace

Orthopedic Appliances

Spinal
and
Extremity

Isle

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Kansas City
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816-221-0206

MSMA Woman's Auxiliary Elects Mrs. George P. Wilson

Mrs. George P. Wilson, Columbia, was elected President of the Woman's Auxiliary to the Missouri State Medical Association at the Auxiliary's 1976 annual convention at Crown Center Hotel in Kansas City on April 1-3.

Other Woman's Auxiliary officers elected for 1976-1977 are Mrs. W. Jack Stehmach, Kansas City, President-Elect; Mrs. Larry Ozenberger, Plattsburg, First Vice-President; Mrs. Donald Fakhoury, Kansas City, Second Vice-President; Mrs. R. W. Hartwig, Kansas City, Third Vice-President; Mrs. Robert S. Hunt, Cape Girardeau, Fourth Vice-President; Mrs. Harold Kanagawa, Jefferson City, Recording Secretary; Mrs. F. T. H'Doubler, Springfield, Treasurer; Mrs. Ray Ritter, Cape Girardeau, Auditor; Mrs. William C. Allen, Columbia, Corresponding Secretary and Mrs. Charles R. Willman, St. Joseph, Parliamentarian.

Mrs. Wilson, whose monthly messages to members of the MSMA will appear regularly in *MISSOURI MEDICINE*, is a Past-President of the Boone County Medical Auxiliary. She was elected President-Elect of the MSMA Woman's Auxiliary for 1975-1976, after serving as Second Vice-President, Third Vice-President and Fifth District Director.

She also was Chairman for the Auxiliary's state fall conferences in 1967 and 1972.

Mrs. Wilson is a graduate of Stephens College, holds a BA degree from the University of Missouri-Columbia and was graduated from Washington University, Barnes Hospital with an MT(ASCP). She was elected to honorary membership in the University of Missouri Mortar Board in 1973 and received the Shield Award of Delta Gamma Fraternity for distinguished achievement for volunteer services to the community in 1974.

She is a member of and has served in various capacities for numerous organizations including the American Association of University Women, Daughters of American Colonists, Daughters of the American Revolution, Altrusa International and Missouri Federated Women's Clubs. She was a member of the Executive Board for Planned Parenthood, Inc. in Columbia in 1972-1975.

Dr. and Mrs. Wilson are the parents of two daughters, Cheryl and Barbara, and a son, Thomas.

Dr. Wilson was elected president of the Missouri Radiological Society at that organization's meeting held during the Annual Session at Crown Center. He is in the private practice of radiology in Columbia.



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Telephone: (Area Code 913) 381-4222

Continuing Education

Coming Events

The continuing medical education accreditation program of the MSMA has full approval by AMA's Council on Medical Education. The institutions and functions listed here qualify for Category I credit for the AMA Physician's Recognition Award. All accredited institutions in Missouri are invited to send this information for listing in MISSOURI MEDICINE. Please remember to include name of individual who can be contacted at your institution for additional information about your CME events.

The Edward Mallinckrodt Institute of Radiology

510 S. Kingshighway, St. Louis 63110
(314) 454-2291

Contact: Ronald G. Evens, M.D.

May 10 City-Wide Conference on Angiography

Menorah Medical Center

4949 Rockhill Rd., Kansas City 64110
(816) 276-8095

Contact: Carol G. Hamilton, Coordinator

May 7-8 The Medical Staff in the Modern Hospital

The Ed Bixby Institute for Postgraduate Medical Education Research Hospital and Medical Center

2316 E. Meyer Blvd., Kansas City 64132
(816) 276-4167

June 2 Adult Respiratory Distress Syndrome

St. John's Mercy Medical Center

615 S. New Ballas Rd.
St. Louis 63141
(314) 569-6000

Apr. 22-23 Eighth Annual Matt Weis Symposium—New Concepts in Obstetrics and Gynecology

St. Louis University Medical Center

Continuing Education
1402 S. Grand Blvd., St. Louis 63104
(314) 664-9800

Contact: John A. Grellner, Director

Apr. 29-30 Clinical Approach to Allergic Disorders

University of Missouri-Columbia School of Medicine

Continuing Education/Extension
M-175 Medical Center, Columbia 65201
(314) 882-2256

Contact: Gail Bank, Exec. Director

Apr. 29-30 Advances in the Localization of Gastrointestinal Bleeding

May 1 Day of Clinical Radiology

May 10-14 Methods of Analysis and Principles of Instrumentation in the Clinical Laboratory
(to be held in Kansas City)

May 16-22 Meeting of American College of Physicians

May 24-25 Fourth International Symposium on Intestinal Microecology

May 27-28 Cytology Workshop
(to be held in Kansas City)

University of Missouri-Kansas City School of Medicine—Kansas City Southwest Clinical Society

Continuing Medical Education
2220 Holmes St., Kansas City 64108
(816) 471-3876
Contact: Alta Bingham

Apr. 29-30 New Advances in Fertility Control and Infertility
(Presented with Kansas City Gynecology Society)

May 14-15 Long Weekend—Cancer Management and Anemias Workshop

June 10-12 Symposium on Clinical Care

Sept. 13-17 Cardiology for the Consultant
(Sponsored by American College of Cardiology)

Sept. 24-25 Long Weekend—Dermatology/Gynecology

Oct. 21-23 Annual Fall Clinical Conference, K.C. Southwest Clinical Society

Nov. 19-20 Long Weekend—Neurology/Pharmacology

Dec. 8-11 The Heart-1976—Current Topics in Cardiology

University of Kansas Medical Center

Div. of Continuing Education
College of Health Sciences
Kansas City, Kan. 66103
(913) 831-7130

Apr. 21-22 Family Practice

Apr. 23 Infectious Diseases

Apr. 26-28 Anesthesiology
(to be held in Kansas City)

May 6-7 Cardiovascular Diseases

Washington University School of Medicine

660 S. Euclid Ave., St. Louis 63110
(314) 454-2515

May 6-8 Current Concepts in Medicine and Surgery—1976
(Presented with The Jewish Hospital)

Nov. 12-14 Anesthesia and the Geriatric Patient

In Memoriam

Robert D. Sanders, M.D., 4212 Flora Pl., St. Louis 63110, a graduate of Northwestern University, 1927; member St. Louis Medical Society; age 76; died Jan. 26, 1976.

Joseph F. Roufa, M.D., 4511 Forest Park Blvd., St. Louis 63108, a graduate of Washington University, 1933; member St. Louis County Medical Society; age 68; died Feb. 16, 1976.

Spencer L. Freeman, M.D., Kirksville 63501, a graduate of St. Louis University, 1922; member North Central Medical Society; age 80; died Feb. 28, 1976.

Gilbert N. Lassar, M.D., 2415 N. Kingshighway, St. Louis 63113, a graduate of Northwestern University, 1937; member St. Louis Medical Society; age 62; died March 2, 1976.

Give now...

to your
medical student
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Help deserving
young Missourians!



**MISSOURI STATE
MEDICAL
FOUNDATION**

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Jefferson City, Missouri 65101

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MISSOURI STATE MEDICAL ASSOCIATION

The Missouri State Medical Foundation is classified by the Internal Revenue Service under Section 509(a)(3). Individuals may deduct up to 50% of their adjusted gross income for contributions made to the MSMF.

BRIEF SUMMARY OF PRESCRIBING INFORMATION **ANTIMINTH®** (pyrantel pamoate) **ORAL SUSPENSION**

Actions. Antiminth (pyrantel pamoate) has demonstrated anthelmintic activity against *Enterobius vermicularis* (pinworm) and *Ascaris lumbricoides* (roundworm). The anthelmintic action is probably due to the neuromuscular blocking property of the drug.

Antiminth is partially absorbed after an oral dose. Plasma levels of unchanged drug are low. Peak levels (0.05-0.13 µg/ml) are reached in 1-3 hours. Quantities greater than 50% of administered drug are excreted in feces as the unchanged form, whereas only 7% or less of the dose is found in urine as the unchanged form of the drug and its metabolites.

Indications. For the treatment of ascariasis (roundworm infection) and enterobiasis (pinworm infection).

Warnings. *Usage in Pregnancy:* Reproduction studies have been performed in animals and there was no evidence of propensity for harm to the fetus. The relevance to the human is not known.

There is no experience in pregnant women who have received this drug.

The drug has not been extensively studied in children under two years; therefore, in the treatment of children under the age of two years, the relative benefit/risk should be considered.

Precautions. Minor transient elevations of SGOT have occurred in a small percentage of patients. Therefore, this drug should be used with caution in patients with preexisting liver dysfunction.

Adverse Reactions. The most frequently encountered adverse reactions are related to the gastrointestinal system.

Gastrointestinal and hepatic reactions: anorexia, nausea, vomiting, gastralgia, abdominal cramps, diarrhea and tenesmus, transient elevation of SGOT.

CNS reactions: headache, dizziness, drowsiness, and insomnia. Skin reactions: rashes.

Dosage and Administration. *Children and Adults:* Antiminth Oral Suspension (50 mg of pyrantel base/ml) should be administered in a single dose of 11 mg of pyrantel base per kg of body weight (or 5 mg/lb.); maximum total dose 1 gram. This corresponds to a simplified dosage regimen of 1 ml of Antiminth per 10 lb. of body weight. (One teaspoonful=5 ml.)

Antiminth (pyrantel pamoate) Oral Suspension may be administered without regard to ingestion of food or time of day, and purging is not necessary prior to, during, or after therapy. It may be taken with milk or fruit juices.

How Supplied. Antiminth Oral Suspension is available as a pleasant tasting caramel-flavored suspension which contains the equivalent of 50 mg pyrantel base per ml, supplied in 60 ml bottles and Unitcups™ of 5 ml in packages of 12.

ROERIG **Pfizer**

A division of Pfizer Pharmaceuticals
New York, New York 10017

One swallow does it



eliminates Pinworms and Roundworms with a single dose

■ **Single dose effectiveness against both pinworms and roundworms—**

The only single-dose anthelmintic effective against pinworms and roundworms.

■ **Nonstaining** — to oral mucosa, stomach contents, stools, clothing or linen.

■ **Well tolerated** — the most frequently encountered adverse reactions are related to the gastrointestinal tract.

■ **Economical** — a single prescription will treat the whole family.

■ **Highly acceptable** — pleasant-tasting caramel flavor.

■ **Convenient** — just 1 tsp. for every 50 lbs. of body weight. May be taken without regard to meals or time of day.

ROERIG *Pfizer*

A division of Pfizer Pharmaceuticals
New York, New York 10017

Please see prescribing information on facing page. NSN 6505-00-148 6967

Antiminth[®] ORAL
(pyrantel pamoate) SUSPENSION
equivalent to 50mg pyrantel/ml

From the Medical Schools



WASHINGTON UNIVERSITY

Washington University School of Medicine has received a grant of \$150,000 per year for five years from the National Institutes of Health to study the immune response in animal models.

Donald C. Shreffler, Ph.D., professor and acting director of the Department of Genetics, is the principal investigator in the study. He plans to study the organization and function of the H-2 gene complex as an animal model in order to understand what part genes may play in the survival of human transplants. The H-2 gene complex is a small segment of one chromosome which carries factors that cause transplantation rejections and control immune responses in laboratory mice.

The Mallinckrodt Foundation has granted \$10,000 for the continuation of research on a treatment to decrease the amount of heart damage after a heart attack.

The research, which is being done at Washington University School of Medicine and St. Luke's Hospital, was begun in 1974 by *John D. Davidson*, M.D., clinical instructor of medicine at the School of Medicine and director of the Division of Hyperbaric Medicine at St. Luke's Hospital. He is collaborating with researchers in the Division of Cardiology at Washington University.

ST. LOUIS UNIVERSITY

The appointment of *Hiltrud S. Mueller*, M.D., as chief of cardiology at St. Louis University Hospitals and professor of Internal Medicine at the School of Medicine has been announced by *George E. Thoma*, M.D., vice-president for the Medical Center.



Dr. Mueller

Previously, Dr. Mueller was director of the Division of Cardiology at St. Vincent Hospital of Worcester, Mass., and chief of the Intensive Care and Shock Unit, at St.

Vincent's Hospital and Medical Center, in New York.

Internationally known for her research, Dr.

Mueller has concentrated on the effects of isoproterenol and l'norepinephrine on the heart after a myocardial infarction. She has done extensive research on the development and application of an intra-aortic balloon pump. She also has been particularly interested in the release of specific enzymes by the heart muscle after a heart attack because this release gives information on the magnitude of damage experienced during myocardial infarction.

A native of Germany, Dr. Mueller received her M.D. degree from the University of Heidelberg. She was a visiting physician at hospitals in Stockholm, Paris and London and a postgraduate fellow in Cardiology at Mount Sinai Hospital in Minneapolis, Minn., and University Hospital of Minnesota under the renowned Dr. C. W. Lillehei.

Dr. Mueller is the second woman to be appointed a full professor at the School of Medicine.

J. Denis Catalano, M.D., assistant clinical professor of ophthalmology and pediatrics, was recently named director of the Section of Pediatric Ophthalmology.

Certified by the American Board of Pediatrics and the American Board of Ophthalmology, Dr. Catalano held two certified fellowships in pediatric ophthalmology at Children's National Medical Center in Washington, D.C. and at Columbia University and New York, and was also designated as a Heed Scholar.

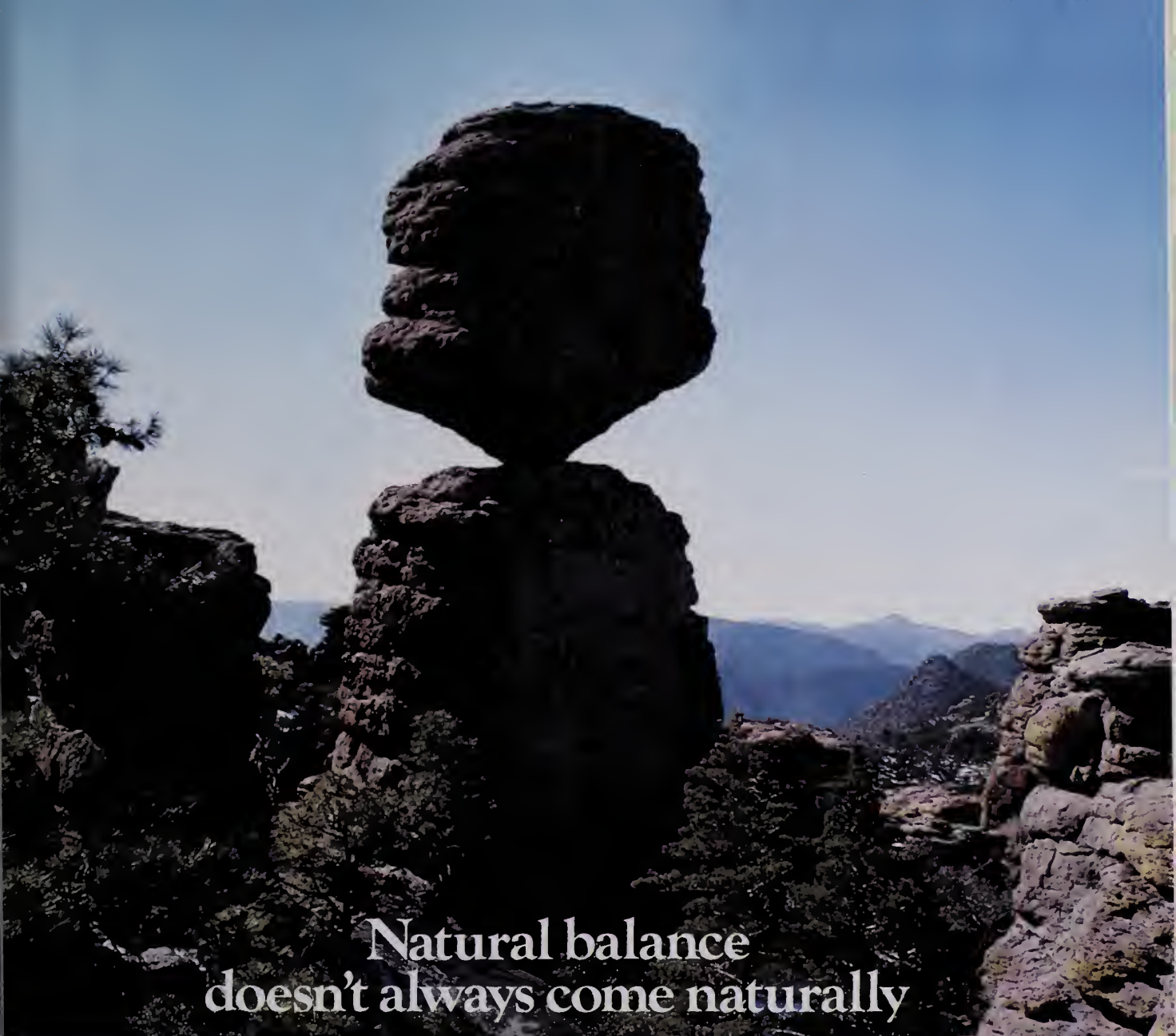


Dr. Catalano

In 1965 he received his M.D. degree from the University of Alabama School of Medicine and served his pediatric residency at Cardinal Glennon Memorial Hospital for Children. He served his ophthalmology residency at St. Louis University Hospitals.

A grant of \$102,680 was awarded to *Denis Cavanagh*, M.B., Ch.B., and *Thomas Hilgers*, M.D. to investigate correlations of cervical mucus changes with serum hormonal levels by the National Institute of Child Health and Human Development.

(Continued on page 197)



Natural balance doesn't always come naturally

Big Balanced Rock, Chiricahua Mountains, Arizona (approx 1,000 tons)

- Found useful in the management of vertigo* associated with diseases affecting the vestibular system.
- Can relieve nausea and vomiting often associated with vertigo.*
- Usual adult dosage for Antivert/25 for vertigo:* one tablet t.i.d.
- Also available as Antivert (meclizine HCl) 12.5 mg. scored tablets, for dosage convenience and flexibility.
- Antivert/25 (meclizine HCl) 25 mg. *Chewable* Tablets for nausea, vomiting and dizziness associated with motion sickness.

BRIEF SUMMARY OF PRESCRIBING INFORMATION

***INDICATIONS.** Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows:

Effective: Management of nausea and vomiting and dizziness associated with motion sickness.

Possibly Effective: Management of vertigo associated with diseases affecting the vestibular system.

Final classification of the less than effective indications requires further investigation.

CONTRAINDICATIONS. Administration of Antivert (meclizine HCl) during pregnancy or to women who may become pregnant is contraindicated in view of the teratogenic effect of the drug in rats.

The administration of meclizine to pregnant rats during the 12-15 day of gestation has produced cleft palate in the offspring. Limited studies using doses of over 100 mg./kg./day in rabbits and 10 mg./kg./day in pigs and monkeys did not show cleft palate. Congeners of meclizine have caused cleft palate in species other than the rat.

Meclizine HCl is contraindicated in individuals who have shown a previous hypersensitivity to it.

WARNINGS. Since drowsiness may, on occasion, occur with use of this drug, patients should be warned of this possibility and cautioned against driving a car or operating dangerous machinery.

Usage in Children: Clinical studies establishing safety and effectiveness in children have not been done; therefore, usage is not recommended in the pediatric age group.

Usage in Pregnancy: See "Contraindications."

ADVERSE REACTIONS. Drowsiness, dry mouth and, on rare occasions, blurred vision have been reported.

More detailed professional information available on request.

ROERIG 
A division of Pfizer Pharmaceuticals
New York, New York 10017

Antivert[®]/25 (meclizine HCl) 25 mg. Tablets for vertigo*

Effectiveness across the spectrum of most common forms of insomnia

Awake too long, awake too often, awake too early...

These are the most common forms of insomnia, and may occur singly or in any combination. The night of troubled sleep depicted here comprises all three types. As the night progresses from left to right, each sleep stage is identifiable by its own shade of gray. Blue represents "Awake."

As you can see, this hypothetical "patient" takes well over an hour to fall asleep, awakens several times during the middle of the night and awakens too early in the morning.

Sleep Stages

	Awake		Stage 2
	REM		Stage 3
	Stage 1		Stage 4

1

2

3

4

5



Awake too long

Awake too often during the night

The insomnias most often occurring in young and older adults

For patients with trouble falling asleep (common in young adult insomnia patients), Dalmane (flurazepam HCl) 30 mg provides sleep within 17 minutes, on average. For those with trouble staying asleep or sleeping long enough (common in those over 50), Dalmane offers increased total sleep time with fewer nocturnal awakenings. These clinical results were demonstrated in studies conducted in four geographically separated sleep research laboratories!^{1,4}

The relative safety of Dalmane (flurazepam HCl) is well documented

Dalmane (flurazepam HCl) is relatively safe and well tolerated; morning "hang-over" has been infrequent. The usual adult dosage is 30 mg; in elderly or debilitated patients, limit initial dosage to 15 mg to preclude over-sedation, dizziness or ataxia. Caution patients about possible combined effects with alcohol and other CNS depressants.

Broad-spectrum medication for the most common forms of insomnia

7

Hours

Dalmane[®] (flurazepam HCl)

One 30-mg capsule *h.s.* — usual adult dosage (15 mg may suffice in some patients).

One 15-mg capsule *h.s.* — initial dosage for elderly or debilitated patients.

- ☐ induces sleep rapidly
- ☐ reduces nighttime awakenings
- ☐ lengthens total sleep time

ROCHE

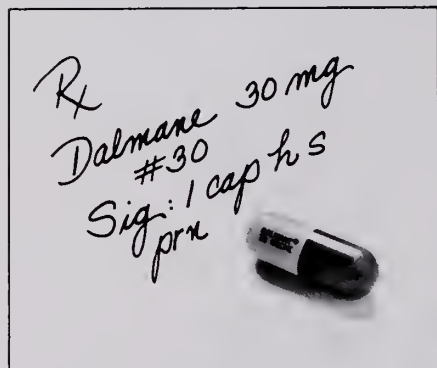


Awake too early

Please see following page for a summary of complete product information.

Broad-spectrum medication for the most common forms of insomnia

Dalmane® (flurazepam HCl)



Objectively proved in the sleep research laboratory, Dalmane

- induces sleep within 17 minutes, on average
- reduces nighttime awakenings
- provides 7 to 8 hours sleep, on average, without repeating dosage

Before prescribing Dalmane (flurazepam HCl), please consult complete product information, a summary of which follows:

Indications: Effective in all types of insomnia characterized by difficulty in falling asleep, frequent nocturnal awakenings and/or early morning awakening; in patients with recurring insomnia or poor sleeping habits; and in acute or chronic medical situations requiring restful sleep. Since insomnia is often transient and intermittent, prolonged administration is generally not necessary or recommended.

Contraindications: Known hypersensitivity to flurazepam HCl.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. Caution against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving). Use in women who are or may become pregnant only when potential benefits have been weighed against possible hazards. Not

recommended for use in persons under 15 years of age. Though physical and psychological dependence have not been reported on recommended doses, use caution in administering to addiction-prone individuals or those who might increase dosage.

Precautions: In elderly and debilitated, initial dosage should be limited to 15 mg to preclude oversedation, dizziness and/or ataxia. If combined with other drugs having hypnotic or CNS-depressant effects, consider potential additive effects. Employ usual precautions in patients who are severely depressed, or with latent depression or suicidal tendencies. Periodic blood counts and liver and kidney function tests are advised during repeated therapy. Observe usual precautions in presence of impaired renal or hepatic function.

Adverse Reactions: Dizziness, drowsiness, lightheadedness, staggering, ataxia and falling have occurred, particularly in elderly or debilitated patients. Severe sedation, lethargy, disorientation and coma, probably indicative of drug intolerance or overdosage, have been reported. Also reported were headache, heartburn, upset stomach, nausea, vomiting, diarrhea, constipation, GI pain, nervousness, talkativeness, apprehension, irritability, weakness, palpitations, chest pains, body and joint pains and GU complaints. There have also been rare occurrences of leukopenia, granulocytopenia, sweating, flushes, difficulty in focusing, blurred vision, burning eyes, faintness, hypotension, shortness of breath, pruritus, skin rash, dry mouth, bitter taste, excessive salivation, anorexia, euphoria, depression, slurred speech, confusion, restlessness, hallucinations, and elevated SGOT, SGPT, total and direct bilirubins and alkaline phosphatase. Paradoxical reactions, e.g., excitement,

stimulation and hyperactivity, have also been reported in rare instances.

Dosage: Individualize for maximum beneficial effect. *Adults:* 30 mg usual dosage; 15 mg may suffice in some patients. *Elderly or debilitated patients:* 15 mg initially until response is determined.

Supplied: Capsules containing 15 mg or 30 mg flurazepam HCl.

REFERENCES:

1. Karacan I, Williams RL, Smith JR: The sleep laboratory in the investigation of sleep and sleep disturbances. Scientific exhibit at the 124th annual meeting of the American Psychiatric Association, Washington DC, May 3-7, 1971
2. Frost JD Jr: A system for automatically analyzing sleep. Scientific exhibit at the 24th Clinical Convention of the American Medical Association, Boston, Nov 29-Dec 2, 1970; and at the 42nd annual scientific meeting of the Aerospace Medical Association, Houston, Apr 26-29, 1971
3. Vogel GW: Data on file, Medical Department, Hoffmann-La Roche Inc., Nutley NJ
4. Dement WC: Data on file, Medical Department, Hoffmann-La Roche Inc., Nutley NJ



ROCHE LABORATORIES
Division of Hoffmann-La Roche Inc.
Nutley, New Jersey 07110

DYAZIDE

MAKES SENSE

® Each capsule contains 50 mg. of Dyrenium® (triamterene, SK&F) and 25 mg. of hydrochlorothiazide.

Trademark

**TRIAMTERENE CONSERVES POTASSIUM
WHILE HYDROCHLOROTHIAZIDE
LOWERS BLOOD PRESSURE**

**FOR LONG-TERM CONTROL
OF HYPERTENSION***

Serum K⁺ and BUN should be checked periodically. (See Warnings Section.)



Before prescribing, see complete prescribing information in SK&F literature or PDR. The following is a brief summary.

* Warning

This fixed combination drug is not indicated for initial therapy of edema or hypertension. Edema or hypertension requires therapy titrated to the individual patient. If the fixed combination represents the dosage so determined, its use may be more convenient in patient management. The treatment of hypertension and edema is not static, but must be reevaluated as conditions in each patient warrant.

* **Indications:** *Edema:* That associated with congestive heart failure, cirrhosis of the liver, the nephrotic syndrome; steroid-induced and idiopathic edema; edema resistant to other diuretic therapy. *Mild to moderate hypertension:* Usefulness of the triamterene component is limited to its potassium-sparing effect.

Contraindications: Pre-existing elevated serum potassium. Hypersensitivity to either component. Continued use in progressive renal or hepatic dysfunction or developing hyperkalemia.

Warnings: Do not use dietary potassium supplements or potassium salts unless hypokalemia develops or dietary potassium intake is markedly impaired. Enteric-coated potassium salts may cause small bowel stenosis with or without ulceration. Hyperkalemia (>5.4 mEq/L) has

been reported in 4% of patients under 60 years, in 12% of patients over 60 years, and in less than 8% of patients overall. Rarely, cases have been associated with cardiac irregularities. Accordingly, check serum potassium during therapy, particularly in patients with suspected or confirmed renal insufficiency (e.g., elderly or diabetics). If hyperkalemia develops, substitute a thiazide alone. If spironolactone is used concomitantly with 'Dyazide', check serum potassium frequently—both can cause potassium retention and sometimes hyperkalemia. Two deaths have been reported in patients on such combined therapy (in one, recommended dosage was exceeded; in the other, serum electrolytes were not properly monitored). Observe patients on 'Dyazide' regularly for possible blood dyscrasias, liver damage or other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving Dyrenium (triamterene, SK&F). Rarely, leukopenia, thrombocytopenia, agranulocytosis, and aplastic anemia have been reported with the thiazides. Watch for signs of impending coma in acutely ill cirrhotics. Thiazides are reported to cross the placental barrier and appear in breast milk. This may result in fetal or neonatal hyperbilirubinemia, thrombocytopenia, altered carbohydrate metabolism and possibly other adverse reactions that have occurred in the adult. When used during pregnancy or in women who might bear children, weigh potential benefits against possible hazards to fetus.

Precautions: Do periodic serum electrolyte and

BUN determinations. Do periodic hematologic studies in cirrhotics with splenomegaly. Anti-hypertensive effects may be enhanced in post-sympathectomy patients. The following may occur: hyperuricemia and gout, reversible nitrogen retention, decreasing alkali reserve with possible metabolic acidosis, hyperglycemia and glycosuria (diabetic insulin requirements may be altered), digitalis intoxication (in hypokalemia). Use cautiously in surgical patients. Concomitant use with antihypertensive agents may result in an additive hypotensive effect. 'Dyazide' interferes with fluorescent measurement of quinidine.

Adverse Reactions: Muscle cramps, weakness, dizziness, headache, dry mouth; anaphylaxis; rash, urticaria, photosensitivity, purpura, other dermatological conditions; nausea and vomiting (may indicate electrolyte imbalance), diarrhea, constipation, other gastrointestinal disturbances. Necrotizing vasculitis, paresthesias, icterus, pancreatitis, xanthopsia and, rarely, allergic pneumonitis have occurred with thiazides alone.

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UNIVERSITY OF MISSOURI-COLUMBIA

Friends and colleagues of *Clement E. Brooke*, M.D., who retired last June from the faculty of the School of Medicine, honored the pediatrician and his wife at a reception on March 17 at Memorial Union.

The Department of Child Health presented to Dr. Brooke a book containing messages from many of his former colleagues and associates. The presentation was made by *Dr. Robert L. Jackson* who was department chairman when Dr. Brooke came to Missouri.

Dr. Brooke joined the faculty of the medical school in 1955 when it moved from a two-year program to a full four-year medical curriculum. The following year he was selected as a Markle Scholar in Academic Medicine, an honor accorded outstanding young teachers in the nation's medical schools.

In 1964, he became director of the Medical Center's newly established multiple handicap clinic and was instrumental in developing comprehensive treatment programs for Missouri's handicapped children. This remained his primary interest until ill health forced his early retirement last year.

Currently, the clinic, now known as the Developmental Evaluation Center, is seeing 240 children

a year for comprehensive evaluation of their problems, offering specific recommendations for their treatment. About 20% have physical but not mental handicaps. Others show various levels of mental retardation. The program, which is now funded by the Missouri Department of Education, was originally established here with a grant from the Children's Bureau of the Department of Health, Education and Welfare.

Dr. Charles L. Puckett, who has spent the past eight years in surgical training and research at Duke University Hospital, has been named chief of plastic surgery and associate professor at the University of Missouri-Columbia Medical Center. He joined the staff in March.

A native of North Carolina, Dr. Puckett was graduated from Elon College and received his M.D. degree in 1966 from Bowman Gray School of Medicine at Wake Forest University, Winston-Salem. He served his internship at Duke Hospital in Durham, N. C., and was appointed chief resident and instructor in surgery during his third year of residency training. The following year, 1971-1972, he received a fellowship and was a full-time associate in the laboratory of *Dr. Donald Silver*, who came from Duke last year to be chairman of UMC's Department of Surgery.

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New Members

Hooshang Amiri Ardestani, M.D., 825 Euclid, Kansas City 64124, has become a member of Jackson County Medical Society. Dr. Ardestani is a native of Iran and received his M.D. degree at Isfahan University in 1965. He specializes in obstetrics and gynecology.

Marcus R. Beck, M.D., 2703 Clark La., Columbia 65201, has become a member of Boone County Medical Society. Dr. Beck is a native of Blair, Neb., received his preliminary education at the University of Nebraska and his M.D. degree at the University of Nebraska in 1947. He specializes in pathology.

Robert L. Corder, Jr., M.D., 510 Francis, St. Joseph 64501, has become a member of Buchanan County Medical Society. Dr. Corder is a native of Kansas, received his preliminary education at Kansas University and his M.D. degree at Kansas University in 1973. He specializes in obstetrics and gynecology.

Thomas J. Donovan, M.D., 1325 S. Grand, St. Louis 63104, has become a member of St. Louis Medical Society. Dr. Donovan is a native of Ohio, received his preliminary education at the University of Cincinnati and his M.D. degree at the University of Cincinnati in 1971. He specializes in otorhinolaryngology.

William R. Fair, M.D., 4960 Audubon, St. Louis 63110, has become a member of St. Louis Medical Society. Dr. Fair is a native of Pennsylvania, received his preliminary education at Philadelphia College and his M.D. degree at Jefferson Medical College in 1960. He specializes in urology.

Kayoumars Fard, M.D., 4940 Audubon, St. Louis, has become a member of St. Louis Medical Society. Dr. Fard is a native of Iran and received his M.D. degree at Pahlavi University in 1972. He specializes in psychiatry.

Vijay R. Gholkar, M.D., 4400 Wornall, Kansas City 64111, has become a member of Jackson County Medical Society. Dr. Gholkar is a native of India, received his preliminary education at K. C. College, India and his M.D. degree at T. N. Medical College in 1969. He specializes in anesthesiology.

William D. Johnston, M.D., Ellis Fischel State Cancer Hospital, Columbia 65201, has become a member of Boone County Medical Society. Dr. Johnston is a native of Memphis, Tenn., received his

preliminary education at Vanderbilt University and his M.D. degree at Vanderbilt University in 1967. He specializes in general surgery, surgery oncology and head and neck surgery.

Michael A. Kass, M.D., 660 S. Euclid, St. Louis 63110, has become a member of St. Louis Medical Society. Dr. Kass is a native of Illinois, received his preliminary education at the University of Michigan and his M.D. degree at Northwestern University in 1971. He specializes in ophthalmology.

Abdul R. Khan, M.D., 9730 East Watson Rd., St. Louis 63126, has become a member of St. Louis Medical Society. Dr. Khan is a native of Pakistan, received his preliminary education at Emerson College and his M.D. degree at Nishtar Medical College in 1964. He specializes in pediatrics.

Gong T. Kuo, M.D., 808 E. Wakefield, Sikeston 63801, has become a member of SEMO County Medical Society. Dr. Kuo is a native of Tainan, Taiwan, received his preliminary education at National Cheng Kung University and his M.D. degree at Chung Shan Medical College in 1968. He specializes in obstetrics and gynecology.

Zuhdi Lababidi, M.D., 807 Stadium, Columbia 65201, has become a member of Boone County Medical Society. Dr. Lababidi is a native of Palestine, received his preliminary education at American University of Beirut, received his M.D. degree at American University of Beirut in 1965. He specializes in pediatric cardiology.

Ben L. Leming, M.D., 819 Locust, St. Louis 63101, has become a member of St. Louis County Medical Society. Dr. Leming is a native of Topeka, Ind., received his preliminary education at Indiana University and his M.D. degree at Indiana University in 1942. He specializes in general and thoracic surgery.

Stephen A. Leslie, M.D., 24th and Gillham, Kansas City 64108, has become a member of Jackson County Medical Society. Dr. Leslie is a native of Kane, Pa., received his preliminary education at the University of Iowa and his M.D. degree at the University of Iowa in 1969. He specializes in pediatrics, allergy and immunology.

James A. Lewis, M.D., 3115 McClelland Blvd., Joplin 64801, has become a member of Jasper County Medical Society. Dr. Lewis is a native of Hope, Ark., received his preliminary education at Ouachita Baptist University and his M.D. degree at the University of Arkansas in 1965. He specializes in obstetrics and gynecology.

Joseph W. Manley, M.D., 4320 Wornall Rd., Kansas City 64111, has become a member of Jackson County Medical Society. Dr. Manley is a native of Kansas City, Kan., received his preliminary education at the University of Kansas and his M.D. degree at Kansas University in 1969. He specializes in obstetrics and gynecology.

Jose A. Marchosky, M.D., Barnes Hospital Plaza, St. Louis 63110, has become a member of St. Louis Medical Society. Dr. Marchosky is a native of Panama, received his M.D. degree at the University of Puerto Rico in 1970. He specializes in neurosurgery.

Duncan C. Meiklejohn, M.D., 2116 S. Sterling, Independence 64052, has become a member of Jackson County Medical Society. Dr. Meiklejohn is a native of Canada, received his preliminary education at the University of Saskatchewan and his M.D. degree at the University of Saskatchewan in 1968. He specializes in obstetrics and gynecology.

Lawrence H. Miller, M.D., 2411 Holmes, Kansas City 64108, has become a member of Jackson County Medical Society. Dr. Miller is a native of Paulding, Ohio, received his preliminary education at Ohio State University and his M.D. degree at George Washington University in 1967. He is in family practice.

Francis A. Mithen, M.D., Washington University, St. Louis 63110, has become a member of St. Louis Medical Society. Dr. Mithen is a native of Massachusetts, received his preliminary education at Tufts University and his M.D. degree at Columbia University in 1971. He is an intern and resident.

Agnes H. Moon, M.D., Rusk Rehabilitation Center, Columbia 65201, has become a member of Boone County Medical Society. Dr. Moon is a native of Seoul, Korea, received her preliminary education at Yonsei University and her M.D. degree at Yonsei University in 1964. She specializes in physical medicine and rehabilitation.

Michael H. Nielson, M.D., 1515 W. Truman Rd., Independence 64050, has become a member of Jackson County Medical Society. Dr. Nielson is a native of American Fork, Utah, received his preliminary education at the University of Missouri and his M.D. degree at the University of Kansas in 1968. He specializes in obstetrics and gynecology.

Dundoo Raghunandan, M.D., 5417 Dr. Martin Luther King Drive, St. Louis 63122, has become a member of St. Louis Medical Society. Dr. Raghunandan is a native of India, received his preliminary

education at Mahboob College and his M.D. degree at Gandhi Medical College in 1961. He specializes in ophthalmology.

James D. H. Reynolds, Jr., M.D., 4320 Wornall Rd., Kansas City 64111, has become a member of Jackson County Medical Society. Dr. Reynolds is a native of Salina, Kan., received his preliminary education at Washburn University and his M.D. degree at Kansas University in 1968. He specializes in internal medicine and gastroenterology.

Robert M. Ross, M.D., 7010 N. Cherry, Gladstone 64118, has become a member of Clay County Medical Society. Dr. Ross is a native of New York, N. Y., received his preliminary education at Oberlin College and his M.D. degree at Georgetown University in 1972. He specializes in internal medicine.

Paul P. Saneman, M.D., 3209 McClelland Ave., Joplin 64801, has become a member of Jasper County Medical Society. Dr. Saneman is a native of Baltimore, Md., received his preliminary education at Loyola College and his M.D. degree at the University of Maryland in 1963. He specializes in obstetrics and gynecology.

Perry L. Schoenecker, M.D., 4989 Barnes Hospital Plaza, St. Louis 63110, has become a member of St. Louis County Medical Society. Dr. Schoenecker is a native of Wisconsin, received his preliminary education at the University of Wisconsin and his M.D. degree at the University of Wisconsin in 1968. He specializes in orthopedics.

Thomas P. Shaner, M.D., 6744 Clayton Road, St. Louis 63117, has become a member of St. Louis Medical Society. Dr. Shaner is a native of St. Louis, received his preliminary education at St. Louis University and his M.D. degree at St. Louis University in 1972. He specializes in obstetrics and gynecology.

Janardana N. Sharma, M.D., 4320 Wornall Rd., Kansas City 64111, has become a member of Jackson County Medical Society. Dr. Sharma is a native of Niddodi, India, received his preliminary education at Government Arts College and his M.D. degree at Kurnool Medical College in 1965. He specializes in internal medicine and nephrology.

John L. Sherlock, M.D., 1582 Champlin, St. Louis 63136, has become a member of St. Louis Medical Society. Dr. Sherlock is a native of Illinois, received his preliminary education at Creighton University and his M.D. degree at Creighton University in 1972. He specializes in radiology.

William P. Svancarek, M.D., 615 S. New Ballas

Rd., St. Louis 63141, has become a member of St. Louis Medical Society. Dr. Svancarek is a native of Illinois, received his preliminary education at Bel-larmine College and his M.D. degree at St. Louis University in 1970. He specializes in surgery.

James H. Whitaker, M.D., 6400 Prospect, Kan-sas City 64132, has become a member of Jackson County Medical Society. Dr. Whitaker is a native of Coral Gables, Fla., received his preliminary

education at the University of Missouri and his M.D. degree at the University of Missouri in 1971. He specializes in orthopedic surgery.

Pochin H. Yin, M.D., 300 S. Grand, St. Louis 63103, has become a member of St. Louis Medical Society. Dr. Yin is a native of China, received her preliminary education at National Taiwan Uni-versity and her M.D. degree at Taiwan University in 1968. She specializes in pediatrics.

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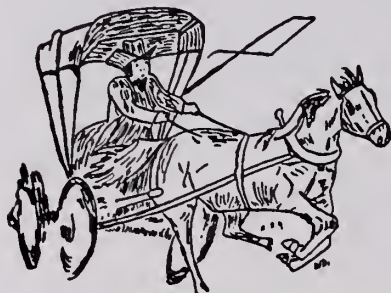
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Missouri Medicine in Review



FORTY YEARS AGO

Columbia was host to the Missouri State Medical Association in 1927, and the members who attended that Session are looking forward to the Annual Session this year (1936) which will convene in Columbia on April 13-15. Columbia has much to offer as a host city and its location in the center of the state makes it readily accessible for all. Because Missouri is fortunate in being host to the American Medical Association in Kansas City on May 11-15, the MSMA Annual Session will convene for three days only.

The Mu Chapter of Phi Beta Pi Medical Fraternity at Washington University School of Medicine has recently inaugurated a series of lectures which will mean much to the cultural improvement of the physicians of St. Louis and vicinity in memorializing the achievements of one of the greatest scientists on the faculty of the University. In naming the lecture the Leo Loeb Lecture, the members reflect honor upon themselves, upon the University and upon Professor Loeb. The first lecture, which was delivered by Prof. W. B. Cannon of Harvard University, proved to be a fascinating presentation of the method of science.

Two long-time St. Louis physicians have been presented Awards of Merit by the St. Louis Medical Society. Dr. Edwin C. Ernst was honored for his achievements as a pioneer in radiology. Dr. Alphonse McMahon was cited for his work in internal medicine.

TWENTY-FIVE YEARS AGO

The 93rd Annual Session to be held in Kansas City on April 23-25 promises to be as successful as the Centennial Session held in 1950. The omission of sessions during the Civil War and, then, World War II in 1945 made the 100th anniversary of the

Association coincide with the 92nd Annual Session.

Color television will be used at the 1951 meeting marking the first showing of color TV in Kansas City. C. Edgar Virden, M.D. of Kansas City, President-Elect will be installed at the Annual Banquet in Honor of Past-Presidents. President W. A. Bloom of Fayette will preside. The speaker will be Melvin A. Casberg, M.D. of St. Louis, Dean of St. Louis University School of Medicine.

"Springfield, Missouri—Medicine loses a giant." Those were the opening words on Alex Drier's 7 AM news broadcast on Monday, March 5, 1951. His elaboration of those impressive words told of the death of Wallis Smith, M.D. and so ably described the outstanding attributes which had endeared Dr. Wallis to so many people.

Willis Hall, M.D. and James A. Dickson, M.D. of St. Louis celebrated the 70th anniversary of their graduation from medical school on March 3.

TEN YEARS AGO

Dr. John T. Logue of Columbia is serving a two-months tour of duty aboard the hospital ship, *S.S. Hope*, off Corinto, Nicaragua. Thirty-two volunteer American physicians are taking part in the current teaching-treatment tour which is planned primarily to bring modern medical knowledge to physicians, nurses and medical technicians in underdeveloped areas of the world.

The 77-year-old Jackson County Medical Society Library has been transferred to the University of Missouri School of Medicine in Kansas City and will be operated as a part of the Kansas City campus of the School. The library was started informally in 1889 in the office of Dr. Joseph R. Sharpe, who served as the Society's first librarian. Since that time, the facility has grown into a 35,000 volume library valued at more than \$300,000.

Leo H. Pollock of Kansas City presented several lectures on breast cancer during a recent visit to South America. One presentation was made in Rio de Janeiro before a joint meeting of the Brazilian College of Surgeons and the International College of Surgeons.

10-day Bactrim therapy outperforms 10-day ampicillin therapy.

In a multicenter, double-blind study of patients with chronic or frequently recurrent urinary tract infection, Bactrim 10-day therapy outperformed ampicillin 10-day therapy by 27.2%, when comparing patients who maintained clear cultures for eight weeks. Criterion for "clear culture" was 1000 or fewer organisms/ml of urine.

While adverse reactions were mild (e.g., nausea, rash), more serious reactions can occur with these drugs. See manufacturers' product information for complete listing.

Note: Bactrim single strength tablets were used in these clinical trials. However, studies have established the bioequivalency of Bactrim DS with the single strength tablets.

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Before prescribing, please consult complete product information, a summary of which follows:

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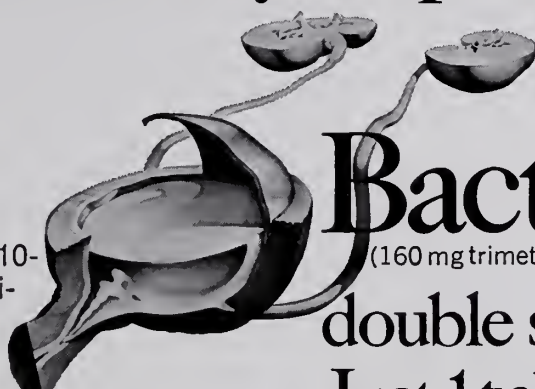
NOTE: The increasing frequency of resistant organisms limits the usefulness of antibacterials, especially in these urinary tract infections. The recommended quantitative disc susceptibility method (*Federal Register*, 37:20527-20529, 1972) may be used to estimate bacterial susceptibility to Bactrim. A laboratory report of "Susceptible to trimethoprim-sulfamethoxazole" indicates an infection likely to respond to Bactrim therapy. If infection is confined to the urine, "Intermediate susceptibility" also indicates a likely response. "Resistant" indicates that response is unlikely.

Contraindications: Hypersensitivity to trimethoprim or sulfonamides; pregnancy; nursing mothers.

Warnings: Deaths from hypersensitivity reactions, agranulocytosis, aplastic anemia and other blood dyscrasias have been associated with sulfonamides. Experience with trimethoprim is much more limited but occasional interference with hematopoiesis has been reported as well as an increased incidence of thrombopenia with purpura in elderly patients on certain diuretics, primarily thiazides. Sore throat, fever, pallor, purpura or jaundice may be early signs of serious blood disorders. Frequent CBC's are recommended; therapy should be discontinued if a significantly reduced count of any formed blood element is noted. **Data are insufficient to recommend use in infants and children under 12.**

Precautions: Use cautiously in patients with impaired renal or hepatic function, possible folate deficiency, severe allergy or bronchial asthma. In patients with glucose-6-phosphate dehydrogenase deficiency, hemolysis, frequently dose-related, may occur. During therapy, maintain adequate fluid intake and perform frequent urinalyses, with careful microscopic examination, and renal function tests, particularly where there is impaired renal function.

Adverse Reactions: All major reactions to sulfonamides and trimethoprim are included, even if not reported with Bactrim. *Blood dyscrasias:* Agranulocytosis, aplastic anemia, megaloblastic anemia, thrombopenia, leukopenia, hemolytic anemia, purpura, hypoprothrombinemia and methemoglobinemia. *Allergic reactions:* erythema multiforme, Stevens-Johnson syndrome, generalized skin eruptions,



Bactrim^{T.M.} DS

(160 mg trimethoprim and 800 mg sulfamethoxazole)

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epidermal necrolysis, urticaria, serum sickness, pruritus, exfoliative dermatitis, anaphylactoid reactions, periorbital edema, conjunctival and scleral injection, photosensitization, arthralgia and allergic myocarditis. *Gastrointestinal reactions:* Glossitis, stomatitis, nausea, emesis, abdominal pains, hepatitis, diarrhea and pancreatitis. *CNS reactions:* Headache, peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo, insomnia, apathy, fatigue, muscle weakness and nervousness. *Miscellaneous reactions:* Drug fever, chills, toxic nephrosis with oliguria and anuria, periarteritis nodosa and L. E. phenomenon. Due to certain chemical similarities to some goitrogens, diuretics (acetazolamide, thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia in patients; cross-sensitivity with these agents may exist. In rats, long-term therapy with sulfonamides has produced thyroid malignancies.

Dosage: **Not recommended for children under 12.** Usual adult dosage: 1 DS tablet (double strength), 2 tablets (single strength) or 4 teasp. (20 ml) b.i.d. for 10-14 days.

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15-30	1 DS tablet (double strength), 2 tablets (single strength) or 4 teasp. (20 ml) every 24 hours
Below 15	Use not recommended

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Oral suspension, containing in each teaspoonful (5 ml) the equivalent of 40 mg trimethoprim and 200 mg sulfamethoxazole; fruit-licorice flavored — bottles of 16 oz (1 pint).

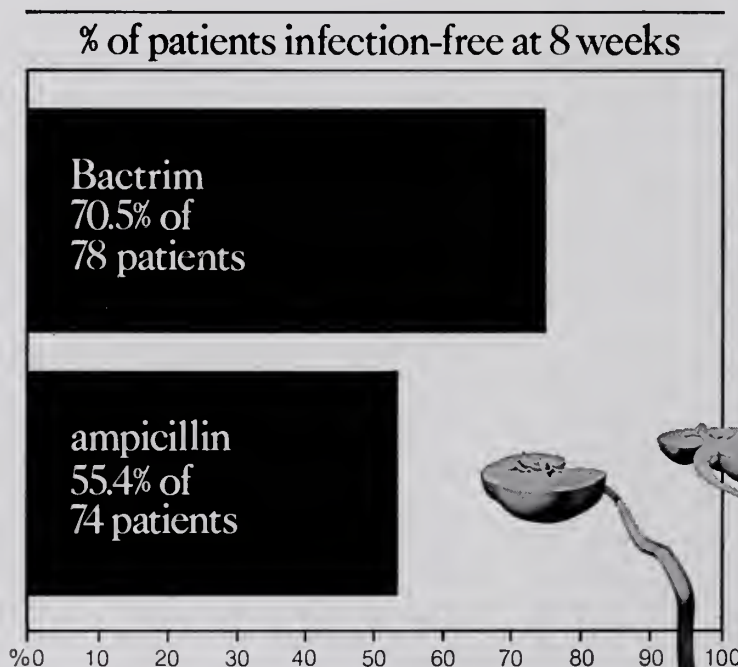
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VOLUME 73, NUMBER 5

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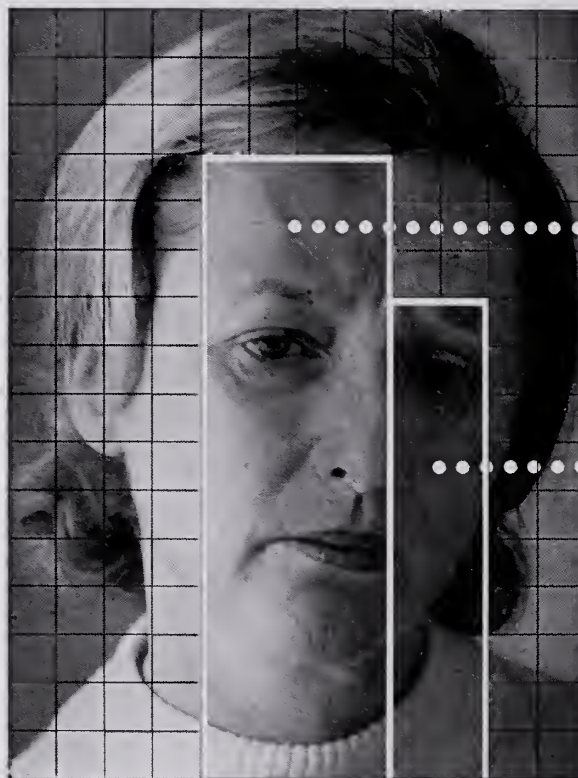
Special Feature

MEDICAL MUSEUM IN ARROW ROCK TO BE DEDICATED TO MISSOURI'S PIONEER DOCTORS 212

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119th MSMA Annual Session
April 14-17, 1977 St. Louis

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anxiety

Associated
depressive
symptoms

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anxiety states
with associated
depressive symptoms

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Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle

spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.



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NEWS ROUND - UP

May, 1976

Six malpractice bills pass !!

A flurry of activity in the final week of the General Assembly resulted in the passage of six bills aimed at improving the medical professional liability insurance situation in Missouri.

Although the legislative Session has been termed as "Do Little" by much of the press, the lawmakers indicated their concern for the professional liability crisis by adopting six out of the package of eight proposed bills. In the hectic final week of the Session, discussion on the professional liability bills consumed more than six hours of floor debate. Many amendments, including nine on one bill, were offered but only one amendment which resulted in a significant change was adopted.

- Senate Bill 470 — Brings minors over the full age of 10 under our excellent Statute of Limitations requiring the filing of malpractice suits within two years from the date of the act. Currently, a minor has until his 23rd birthday to bring such a suit. The bill provides that a claimant would have two years from discovery, or a maximum of 10 years, to bring suit if a foreign body was negligently left in the patient.

- Senate Bill 471 — Establishes a system of review panels to consider malpractice cases before they go to court. The panels will be composed of two physicians, at least one of which shall be of the same specialty as the defendant, two attorneys, one layman and a non-voting circuit judge. The bill is aimed at reducing the number of frivolous suits filed.

- Senate Bill 472 — Strengthens the powers of the Board of Registration for the Healing Arts by allowing the board to suspend or revoke a physician's license for reasons of medical incompetency or by use of treatments that are contrary to medical standards or the consistent utilization of services which are medically inappropriate. The Board could also compel a physician to submit to a medical competency re-examination.

- House Bill 1307 — Provides that a claimant cannot ask for a specific amount in a medical malpractice suit, but rather must request "fair and reasonable" compensation. It is hoped this law will eliminate the prejudicial press coverage that occurs when a suit for several million dollars is filed. Usually, such a case receives front page newspaper coverage when it is filed, but if it is thrown out of court or settled for a very low amount, the public is not made aware.

- House Bill 1308 — Requires that insurance companies must report all medical malpractice claims to the Director of the Missouri Division of Insurance. Currently there are few statistics available to prove or disprove insurance companies' claims that high losses are responsible for the increasing premiums for professional liability coverage. Many sources say that Missouri physicians are paying for losses in other states. This bill should provide an accurate picture of the situation in Missouri.

- House Bill 1309 — Places on the books enabling legislation to establish a Joint Underwriting Association to provide professional liability insurance if such insurance becomes unavailable through commercial companies.

Two bills in the package did not pass the General Assembly. House Bill 1306 attempted to define "informed consent" for medical treatment while House Bill 1312 would have permitted admission of collateral sources of payment in malpractice cases. The "informed consent" bill ran into trouble when those physicians testifying before the House Committee could not agree

Continued on Next Page

MSMA House votes to hold Fall Session

A special meeting of the House of Delegates of the Missouri State Medical Association will be held in the Fall of 1976 following action taken at the 118th Annual Session, April 1-4, in Kansas City.

The Delegates stated that the increasing scope of work required of the House is impossible to adequately handle during one meeting each year. The resolution calling for the Interim Session stressed the need for the House to consider medical legislation, both state and national, at the Fall meeting. The MSMA Council is currently making arrangements for dates and location of the meeting.

In a related proposed change in the MSMA Constitution, the House gave preliminary approval to placing the Interim Session on an annual basis. The proposed change, which must lie on the table and be voted on at the 1977 Annual Session, reads, "*Resolved, that Article VI, Section I, of the Constitution of the MSMA be changed to read: The Association shall hold an annual Spring session and an interim Fall session of the House of Delegates, at places fixed by the House of Delegates, the time of which shall be fixed by the Council.*"

In all, the House adopted or referred 32 resolutions dealing with malpractice, legislation, government and internal affairs. A brief explanation of those resolutions adopted or referred follows. Complete minutes of the Annual Session will be published in the July issue of MISSOURI MEDICINE and further information on individual issues is available by contacting MSMA Headquarters.

MALPRACTICE

Ad Hoc Committee on Malpractice — Directs appointment of a special committee on malpractice to analyze the problems and the accomplishments in other states and return to the House recommendations for resolving the problems. Osteopathic and hospital representatives may be committee members and funding for legal counsel is included.

Medical Liability Clearinghouse — Requests each MSMA member to submit to the Association information as to the number and disposition of malpractice suits filed so statistical data can be obtained.

Health Care Accident — Resolves that the MSMA investigate and, if possible, campaign for legislation to remove the unforeseen health care accident from the civil liability tort system.

LEGISLATION

Definition of Death — States that "a person shall be considered dead if in the announced opinion of a physician, based on ordinary standards of medical practice, he has experienced an irreversible cessation of spon-



NEW LEADERS CONFER . . . MSMA President Max S. Franklin (right) and President-Elect Howard J. McAlhany discuss issues during the Annual Session.

taneous respiratory and circulatory functions. In the event that artificial means of support preclude a determination that these functions have ceased, a person shall be considered dead if in the announced opinion of a physician, based on ordinary standards of medical practice, he has experienced an irreversible cessation of spontaneous brain functions."

Informed Consent — Refers to Committee on Legislative Affairs a resolution asking the MSMA to determine uniform and proper forms for informed consent and petition the General Assembly to pass such legislation.

Coverage for Psychiatric Illness — Urges General Assembly to require minimum inpatient and outpatient mental and emotional illness benefits in any health insurance policy issued in Missouri.

Physician's Assistants — Supports House Bill 1054 which would allow the assistant of a physician acting under his direct prescription, supervision or direction to perform acts needed to help physicians best serve their patients.

Board of Healing Arts — Instructs MSMA to help the State Board of Registration for the Healing Arts regain its powers as stated in Senate Bill 472.

Fireworks — Places the MSMA on record as supporting a ban on the sale of fireworks in Missouri.

Continued on Next Page

Malpractice bills pass

Continued

on specific language. The "collateral source" bill was held in the Senate Committee due to disagreement on whether the patient's payment of insurance premiums and the physician's amount of malpractice coverage should be admissible evidence.

Sen. Albert M. Spradling (D-Cape Girardeau), who headed a special Senate Committee on Malpractice and sponsored much of the malpractice legislation this Session, called the six bills which passed, "the No. 1 package of malpractice law in the U.S." He added that unlike some other states, Missouri's new laws would stand court tests of their constitutionality.

The Missouri State Medical Association's House of Delegates called for the establishment of a committee to study the results of the recently completed General Assembly and develop plans to further alleviate the malpractice insurance crisis in forthcoming Sessions.

House of Delegates takes stand on issues

Continued

Health Manpower — Outlines the MSMA's opposition to the restrictive measures in present federal health manpower legislation before Congress.

GOVERNMENTAL AFFAIRS

Sudden Infant Death Syndrome — Urges that SIDS be made a reportable disease so that parents suffering the tragedy can be identified and could receive correct information, supportive counseling and services as needed.

Director of Department of Mental Health — Restates the MSMA position that the Director of the Department of Mental Health and the superintendents of its hospitals be physicians competent in the field of psychiatry.

Uniform Hospital Discharge Data — Commends the Missouri Division of Health for its stand against unreasonable proposed regulations regarding the Uniform Hospital Discharge Data Abstract as issued by the Department of H.E.W.

Temporary Licensees — Supports the practice of allowing graduate trainees in approved programs with temporary licenses to prescribe controlled substances in closely supervised institutional settings.

Public Law 93-641 — Places MSMA on record as opposing PL 93-641 (National Health Planning and Development Law) and supports efforts of AMA to repeal the law.

PSRO — Asks AMA to continue efforts to amend the PSRO law to make it less threatening to good medical care.

Defense of Rights — Endorses the AMA stand supporting the right of individual physicians voluntarily to elect not to participate in governmental review programs which they believe conflict with the principles of good medical practice when they have no contractual or ethical obligation to such programs.

Review Reimbursement — Backs AMA stand that compensation of physicians conducting utilization review is a legitimate hospital expense and that cost of such review should be included in hospital rates and reimbursable costs.

CHAMPUS — Urges local, state and national medical societies to resist new CHAMPUS rules concerning fees for service.

Medicare Reimbursement — Instructs MSMA to take appropriate action to seek a return of Medicare reimbursement to a physician's usual, customary, or reasonable charges in line with the program's original legislative contract to its beneficiaries.

Medicaid Reimbursement — Calls for the MSMA to seek a realistic basis of reimbursement by Medicaid through negotiations with the welfare department, the legislature and the governor.

Generic Prescribing — Resolves that the MSMA and its members oppose schemes to require generic prescribing of drugs in Missouri.

INTERNAL AFFAIRS

Vice Councilor — Proposes that Article VII, Section II of the MSMA Constitution be amended to read: "All officers except Councilors and Vice Councilors shall be elected annually. The terms of Councilors and Vice Councilors shall be two years. Half of the membership of the Council shall be elected each year. The Secretary and the Treasurer shall be elected by the Council. The Delegates present from each Councilor District shall

meet prior to the last day of the Annual Session and elect the Councilor and Vice Councilor from that District. In the event of death, resignation or removal of any Councilor, the Vice Councilor shall automatically fill the vacancy. All of the officers shall serve until their successors are elected and installed."

Commission on Interspecialty Medicine — Refers to the Council a resolution directing the MSMA Commission on Interspecialty Medicine to carry out its original charges as stated in the Bylaws.

Medical Student Involvement — Directs the Association to study the feasibility of inviting medical students from Missouri to the Annual Session with expenses to be paid by voluntary contributions from MSMA members.

Confidentiality — Places MSMA on record as strongly opposed to any move that would threaten the confidentiality of the doctor-patient relationship and asks that an ad hoc committee be named to further study the problems and report back at the 1977 Annual Session.

Negotiations — Instructs the MSMA Council to increase its effort to explore the possibility of developing a negotiating capacity with third parties either within the Association or through an affiliated organization.

AMA Department of Negotiations — Encourages the AMA to actually take a stance which would allow collective bargaining or true negotiations on behalf of its members.

JCAH — Endorses the AMA position that the Joint Commission on Accreditation of Hospitals take the lead in developing a unified accreditation policy with one set of standards and inspections to be administered by the JCAH and to create a coordinated program of hospital surveys to avoid duplication and reduce the frequency of hospital inspections.

Advertising — Refers to the Commission on Medical Economics a resolution directing the MSMA to resist efforts of the federal government to enter into the area of physician advertising.

Bond takes objections on HSA law to Ford

Gov. Christopher S. Bond will take his objections of the federally-mandated National Health Planning and Development Act directly to President Ford.

Bond, who has called for repeal of the law establishing the consumer-dominated Health Service Agencies to replace Comprehensive Health Planning Agencies, Regional Medical Planning bodies and the Hill-Burton Program, had received word that officials of the U.S. Department of Health, Education and Welfare would like to meet and discuss the issues.

However, an agreement on a meeting date has not yet been reached and Gov. Bond's office indicated that he would discuss the law when he meets with President Ford this month.

Although Gov. Bond officially protested designation of the five HSA Areas in Missouri, the Department of HEW has announced funding levels for the organizations. The first grant by area, according to HEW, will be Area I (\$198,380), Area II (\$153,236), Area III (\$349,132), Area IV (\$120,750), and Area V (\$100,500).

Dr. Max S. Franklin assumes Presidency

Dr. Max S. Franklin, of St. Louis, was installed as President of the Missouri State Medical Association during ceremonies at the 118th Annual Session, April 3, in Kansas City.

Dr. Franklin served as President-Elect the past year. He succeeds Dr. R. Allen Chandler, of Kansas City, who remains on the MSMA governing body as Immediate Past President.

In elections at the Annual Session, Dr. Howard J. McAlhany, of Springfield, was unanimously selected as President-Elect of the MSMA and will assume the Presidency at the 1977 Annual Session.

Dr. McAlhany is Immediate Past Chairman of the MSMA Council and has served several terms as Councilor from the Eighth District. He is a member of the Board of Missouri State Medical Insurance, Inc., and served on the Governor's Task Force on Malpractice the past year.

Delegates to the House elected a new AMA Delegate and Alternate Delegate, the Speaker and Vice Speaker and three Vice Presidents.

Dr. James C. Sisk, St. Louis, currently an Alternate Delegate, was elected AMA Delegate to succeed Dr. Stanley S. Peterson, Springfield, who did not seek re-election. Dr. Sisk will take office on Jan. 1, 1977. Dr. Richard P. Bowles, Liberty, was elected to succeed Dr. Sisk as Alternate Delegate. Dr. Rae W. Froelich, Lebanon, was re-elected to his AMA Delegate post and Dr. Melvin C. Kasten, Cape Girardeau, was re-elected as Alternate Delegate.

Serving as Vice-Presidents of the MSMA for 1976-77 are Drs. Hubert A. Ritter, St. Louis; Charles H. Appleberry, Rivermines; and Miles C. Whitener, St. Louis County.

The House re-elected Dr. James T. Brown,



Dr. John N. Martin, Council Chairman

Springfield, as Speaker and Dr. Edwin K. Burford Jr., Cape Girardeau, as Vice Speaker.

Three new Councilors took office following District elections. Dr. H. Peter Ekern, Mexico, succeeded Dr. Robert E. Bregant, of Jefferson City, in the Fifth District; Dr. John Torontow, Nevada, succeeded Dr. William D. Bradshaw, Columbia, in the Sixth District, and Dr. Walter A. German, Jr., Springfield, replaced President-Elect McAlhany. Dr. Bregant did not seek re-election and Dr. Bradshaw re-located outside of District Six.

Re-elected to the Council were Dr. John N. Martin, St. Joseph, First District; Dr. Donald R. Judd, St. Louis, Third District; and Dr. Andrew McCanse, Kansas City, Seventh District.

The Council met in an organizational meeting following the Annual Session and elected Dr. Martin as Chairman and Dr. McCanse as Vice Chairman.

The Council re-elected Dr. John I. Matthews, Jefferson City, as Secretary and Dr. Richard V. Bradley, St. Louis, as Treasurer.

Medicare official explains 'appeals process'

Several MSMA members have requested information regarding the Medicare hearing process. E. E. Carlson Jr., of the Medicare Department of General American Life in St. Louis, submitted the following review of the entire appeals process as it involves Part B of the Medicare Program.

"The appeal mechanism is initiated upon receipt of a written request from the Medicare beneficiary or physician if the claim is assigned, or from the Medicare beneficiary if the claim is non-assigned. This request need not be a formal letter, a hand-written notation requesting the review is sufficient to initiate the informal review process. This process dictates that a complete re-evaluation of the Medicare claim is completed by persons who were not involved in the initial adjudication of the claim. This includes both medical consultants and lay staff.

"At this time, approximately 45% of all informal reviews result in additional allowances being made. This high percentage of reversals at this level of the appeal process is attributed to the fact that when a request for review is received, it usually contains information not on the original claim regarding the complexity of the service rendered, etc.

"If the physician or beneficiary feel that the informal review process has not resolved the claim to the satisfaction of the claimant (physician or Medicare beneficiary), the final step in the appeals process, "a Fair Hearing," can be requested. The hearing process is conducted at a time and place convenient to the person requesting the hearing by an impartial Hearing Officer. At this time, General American's Medicare Division's Hearing Officer is an employee of General American Life Insurance Company who is not associated with Medicare.

"The hearing process allows the claimant or their representative to present oral or written testimony. After receiving testimony, any evidence submitted and reviewing the appropriate section of the Medicare Law, a decision is rendered within two to four weeks. Statistically, the hearing process has found for the claimant, in full or in part, approximately 50% of the time.

"In summary, the entire appeals process is designed to operate impartially with as few restrictions as possible being placed upon the claimant. For a physician to become an interested party, i.e. request a hearing or review, the claim in question must be assigned. For a hearing request, there must be at least \$100 in controversy."

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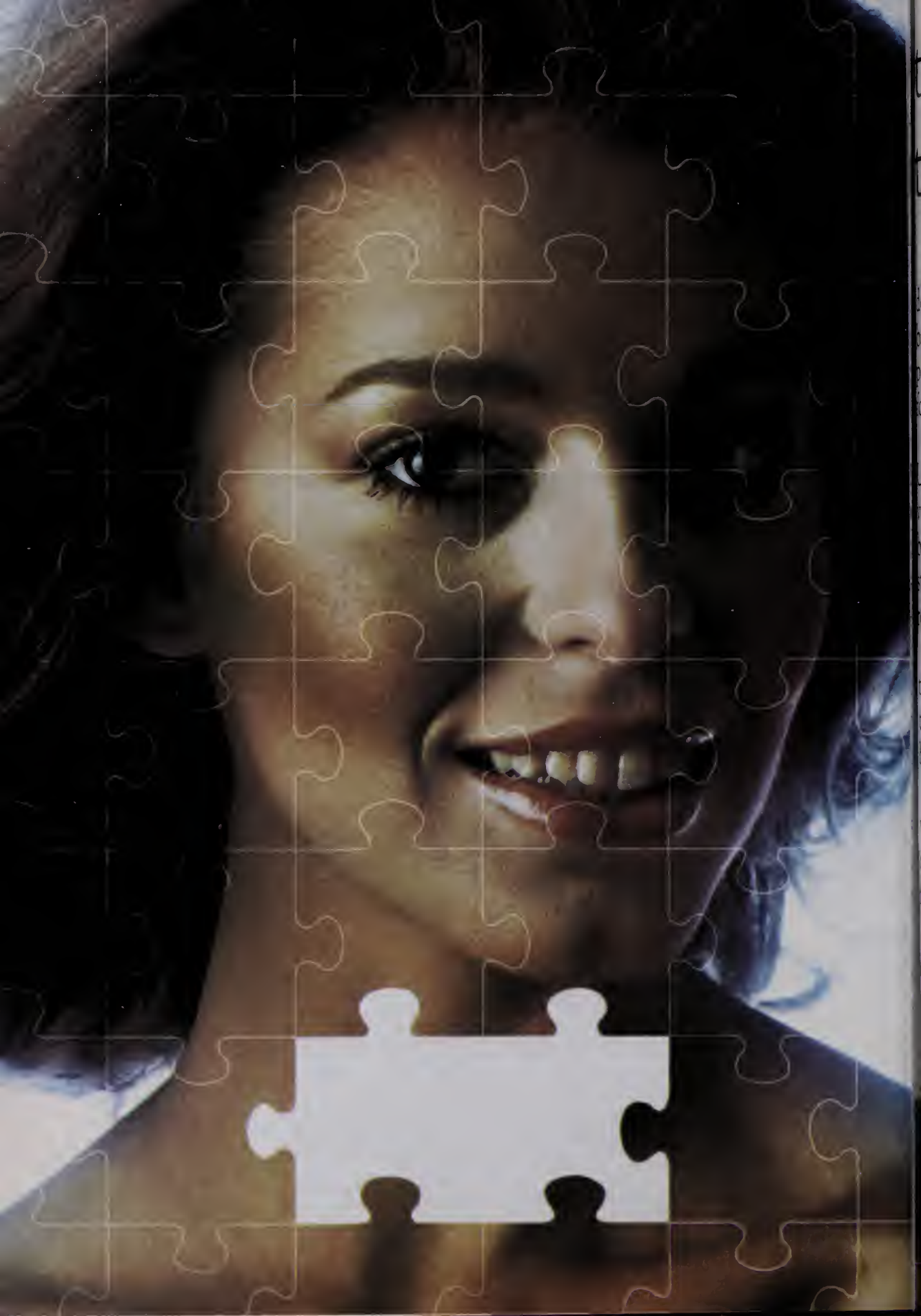
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T4, T3, or both? SYNTHROID (Sodium Levothyroxine, U.S.P.) Flint is T4 which is converted to T3 at the cellular level, providing a physiologic source and optimal amount of T3 to meet metabolic needs for your hypothyroid patients. Because of the slower and steadier onset of action, the possibility of sudden metabolic surges is reduced with SYNTHROID therapy.

SYNTHROID medication is practical and economical for long-term therapy. A recent study of 44 hypothyroid patients indicates that 89 percent were maintained with doses of T4 (SYNTHROID) between 100 mcg. and 200 mcg. (0.1 mg. and 0.2 mg.) per day.¹

If you're interested we'd be pleased to send clinical data. Write representative.

in additional information, you a portfolio of pertinent or contact your Flint

Synthroid®
(Sodium
Levothyroxine,
U.S.P.) Flint



See reverse side for full prescribing information

1. Stock, J. M., Surks, M. I., and Oppenheimer, J. H. Replacement dosage of L-thyroxine in hypothyroidism. A re-evaluation. New Engl. J. Med. 290:529-33, 1974.



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Deerfield, Illinois 60015

Synthroid®

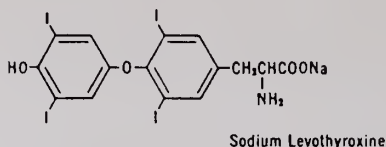
(Sodium Levothyroxine. U.S.P.) Flint

Eliminates many of the uncertainties of desiccated thyroid therapy



Synthroid Tablets—for oral administration
Synthroid for Injection—for parenteral administration

Description: SYNTHROID (sodium levothyroxine) **Tablets** and **SYNTHROID Injection** contain synthetic crystalline sodium levothyroxine (L-thyroxine). L-thyroxine is the principal hormone secreted by the normal thyroid gland.



Actions: SYNTHROID (sodium levothyroxine) **Tablets**, taken orally, provide hormone that is readily absorbed from the gastrointestinal tract. **SYNTHROID Injection** is effective by any parenteral route. Following absorption, the synthetic L-thyroxine provided by SYNTHROID products cannot be distinguished from L-thyroxine that is endogenously secreted. Each is bound to the same serum proteins and each exhibits a six to seven day circulating half-life in the euthyroid individual.

Both SYNTHROID products will provide L-thyroxine as a substrate for physiologic deiodination to L-triiodothyronine. Therefore, patients taking SYNTHROID products will demonstrate normal blood levels of L-triiodothyronine even when the thyroid gland has been surgically removed or destroyed by radiiodine. Administration of levothyroxine alone will result in complete physiologic thyroid replacement.

Indications: SYNTHROID (sodium levothyroxine) products serve as specific replacement therapy for reduced or absent thyroid function of any etiology. **SYNTHROID Injection** can be used intravenously whenever a rapid onset of effect is critical, and either intravenously or intramuscularly in hypothyroid patients whenever the oral route is precluded for long periods of time.

Contraindications: There are no absolute contraindications to SYNTHROID (sodium levothyroxine) therapy. Relative contraindications include acute myocardial infarction, uncorrected adrenal insufficiency and thyrotoxicosis. (See WARNINGS)

Warnings: Patients with cardiovascular diseases warrant particularly close attention during the restoration of normal thyroid function by any thyroid drug. In such cases, low initial dosage increased slowly by small increments is indicated. Occasionally, the cardiovascular capacity of the patient is so compromised that the metabolic demands of the normal thyroid state cannot be met. Clinical judgment will then dictate either a less-than-complete restoration of thyroid status or reduction in thyroid dosage.

Endocrine disorders such as diabetes mellitus, adrenal insufficiency (Addison's disease), hypopituitarism and diabetes insipidus are characterized by signs and symptoms which may be diminished in severity or obscured by hypothyroidism. SYNTHROID (sodium levothyroxine) therapy for such patients may aggravate the intensity of previously obscured symptoms and require appropriate adjustment of therapeutic measures directed at these concomitant disorders.

Thyroid replacement may potentiate the effects of anticoagulants. Patients on anticoagulant therapy should have frequent prothrombin determinations when instituting thyroid replacement to gauge the need to reduce anticoagulant dosage.

Precautions: Overdosage with any thyroid drug may produce the signs and symptoms of thyrotoxicosis, but resistance to such factitious thyrotoxicosis is the general rule. With SYNTHROID (sodium levothyroxine) **Tablets**, the relatively slow onset of action minimizes the risk of overdose but close observation in the weeks following institution of a dosage regimen is advised. Treatment of thyroid hyperactivity induced by oral medication is confined to interruption of therapy for a week, followed by reinstitution of daily therapy at an appropriately reduced dosage.

Adverse reactions: Adverse reactions are due to overdose and are those of induced hyperthyroidism.

Dosage and administration: For most adults, a final dosage of 100 mcg (0.1 mg) to 200 mcg (0.2 mg) of SYNTHROID (sodium levothyroxine) **Tablets** daily will restore normal thyroid function and only occasionally will patients require larger doses. Failure to respond adequately to a daily oral intake of 400 mcg (0.4 mg) or more is rare and should prompt reconsideration of the diagnosis of hypothyroidism, special investigation of the patient in terms of malabsorption of L-thyroxine from the gastrointestinal

tract or poor adherence to therapy.

The concomitant appearance of other diseases, especially cardiovascular diseases, usually dictates a replacement regimen with initial doses smaller than 100 mcg/day (0.1 mg).

In otherwise healthy adults with relatively recent onset of hypothyroidism, full replacement dose of 150 mcg (0.15 mg) or 200 mcg (0.2 mg) has been instituted immediately without untoward effect and with good therapeutic response. General experience, however, favors a more cautious approach in view of the possible presence of subclinical disorders of the cardiovascular system or endocrinopathies.

The age and general physical condition of the patient as well as the severity and duration of hypothyroid symptoms determine the starting dosage and the rate of incremental dosage increase leading to a final maintenance dosage. In the elderly patient with long standing disease, evidence of myxedematous infiltration and symptomatic, functional or electrocardiographic evidence of cardiovascular dysfunction, the starting dose may be as little as 25 mcg (0.025 mg) per day. Further incremental increases of 25 mcg (0.025 mg) per day may be instituted at three to four week intervals depending on patient response. Conversely, otherwise healthy adults may be started at higher daily dosage and raised to the full replacement dosage in two to three weeks. Clearly it is the physician's judgment of the severity of the disease and close observation of patient response which determines the rate of dosage titration.

Laboratory tests to monitor thyroid replacement therapy are of limited value. Although measurement of normal blood levels of thyroxine in patients on replacement regimens frequently coincides with the clinical impression of normal thyroid status, higher than normal levels on oral replacement of levothyroxine occasionally occur and should not be considered evidence of overdosage per se.

In all cases, clinical impression of the well-being of the patient takes precedence over laboratory determination in determining the appropriate individual dosage.

In infants and children, there is a great urgency to achieve full thyroid replacement because of the critical importance of thyroid hormone in sustaining growth and maturation. Despite the smaller body size, the dosage needed to sustain a full rate of growth, development and general thriving is higher in the child than in the adult, as much as 300 mcg (0.3 mg) to 400 mcg (0.4 mg) per day.

In myxedema coma or stupor, without concomitant severe heart disease, 200 to 500 mcg of SYNTHROID **Injection** may be administered intravenously as a solution containing 100 mcg/ml. Although the patient may show evidence of increased responsiveness within six to eight hours, full therapeutic effect may not be evident until the following day. An additional 100 to 300 mcg or more may be given on the second day if evidence of significant and progressive improvement has not occurred. Like the oral dosage form, SYNTHROID **Injection** produces a predictable increase in the circulating level of hormone with a long half-time. This usually precludes the need for multiple injections but continued daily administration of lesser amounts intravenously should be maintained until the patient is fully capable of accepting a daily oral dose.

In the presence of concomitant heart disease, the sudden administration of such large doses of L-thyroxine intravenously is clearly not without its cardiovascular risks. Under such circumstances, intravenous therapy should not be undertaken without weighing the alternative risks of the myxedema coma and the cardiovascular disease. Clinical judgment in this situation may dictate smaller intravenous doses of levothyroxine.

SYNTHROID **Injection** by intravenous or intramuscular routes can be substituted for the oral dosage form when ingestion of SYNTHROID **Tablets** is precluded for long periods of time.

How Supplied: SYNTHROID (sodium levothyroxine) **Tablets** are supplied as scored, color-coded compressed tablets in 6 concentrations: 25 mcg (0.025 mg)—orange . . . 50 mcg (0.05 mg)—white . . . 100 mcg (0.1 mg)—yellow . . . 150 mcg (0.15 mg)—blue . . . 200 mcg (0.2 mg)—pink . . . 300 mcg (0.3 mg)—green.

SYNTHROID (sodium levothyroxine) for **Injection** is supplied in 10 ml vials containing 500 mcg of lyophilized active ingredient and 10 mg of Mannitol, U.S.P. A separate 5 ml vial containing Sodium Chloride Injection, U.S.P. is provided as a diluent.

Directions for reconstitution: Reconstitute the lyophilized sodium levothyroxine by aseptically adding 5 ml of the Sodium Chloride Injection, U.S.P. to the vial. Shake vial to insure complete mixing. **Use immediately** after reconstitution. Discard any unused portion.

U.S. Pat. 2,889,363



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January 1975

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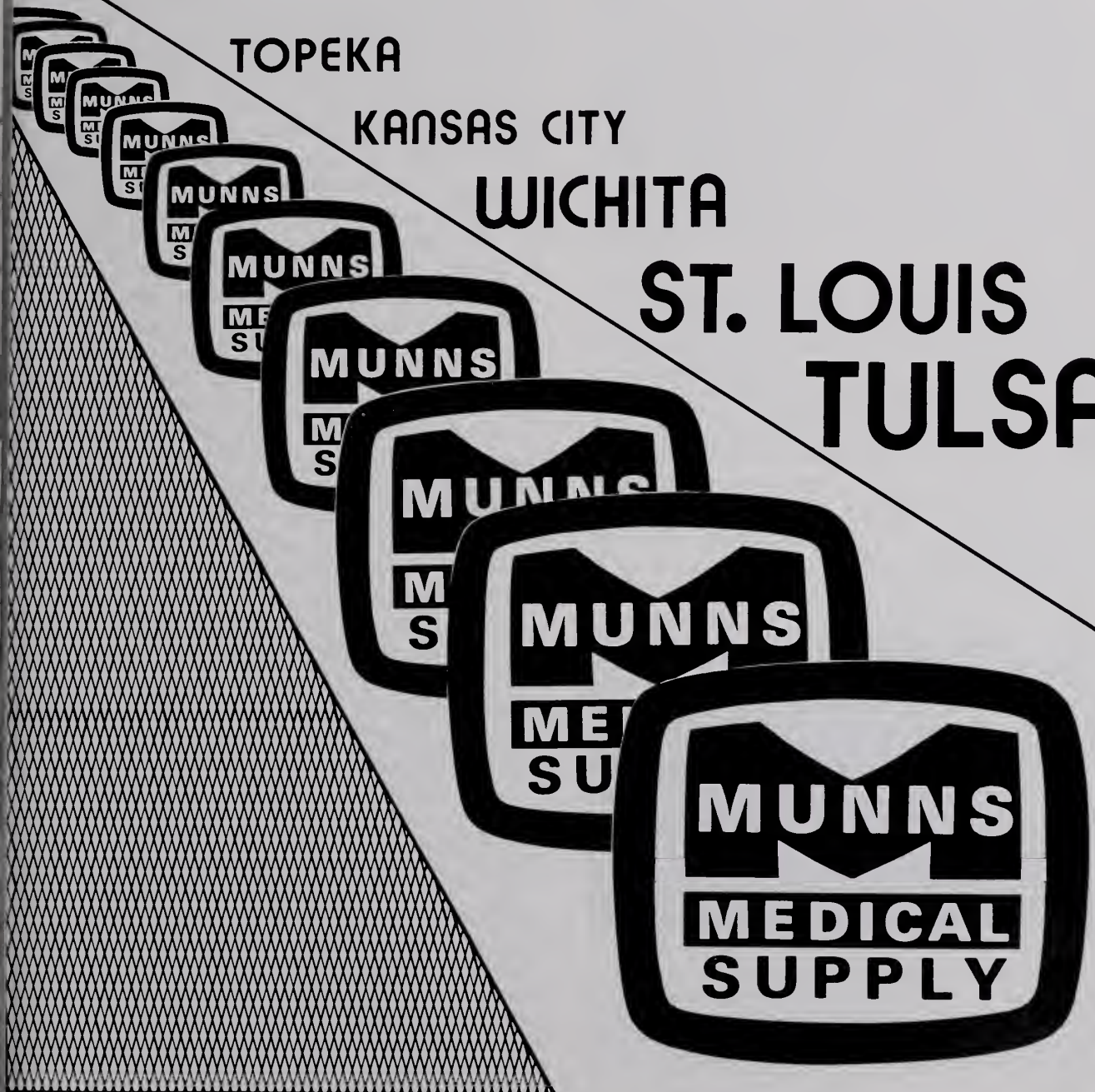
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Medical Museum in Arrow Rock to Be Dedicated to Missouri's Pioneer Doctors

MSMA Members Are Invited to Attend Ceremony

MISSOURI MEDICAL HISTORY will be made as well recorded at historic Arrow Rock when the recently completed Medical Museum will be officially opened and dedicated to Missouri's pioneer doctors at 2:30 PM on May 30, 1976.

All members of the Missouri State Medical Association and their families and friends are invited and urged to attend the dedication ceremony.

The dedicatory speaker will be James C. Cope, M.D. of Columbia, a Past-President of the MSMA and an authority on the history of medicine. Dr. John R. Lawrence of Arrow Rock also has stated that there will be entertainment and a gala celebration for physicians and their families to enjoy at the opening of this unique Arrow Rock Project for 1976.

This means that all Missouri physicians will have a special Bicentennial Year opportunity to assist Dr. Lawrence and the Friends of Arrow Rock in further developing a historical record of Missouri's first physicians and the medicines and equipment with which they practiced. It is appropriate that the role of these dedicated men will be properly recognized and honored in this important frontier town which is attracting nationwide interest and recognition as a result of the extensive and authentic restoration efforts.



Hamilton Photo

A portion of this log and walnut weatherboarded house was moved to Arrow Rock for the Medical Museum. Built in 1835 by Richard Prindell Shelby who came from Kentucky, it was 70 feet long by 20 feet wide and contained four large rooms and three large stone fireplaces.

An important historical feature of the Medical Museum will be a portion of a log and walnut weatherboarded house built in 1835 which was moved to Arrow Rock by the Friends of Arrow Rock. It has been used to represent both a pioneer doctor's office and as an example of pioneer architecture and construction. The land upon which the building is located was donated for this purpose.

When completed, the museum will have a two-fold purpose. The rooms in the front of the building will be for educational purposes and will display historical medical memorabilia and artifacts as well as slides, books and pictures. There will be a public meeting room on the second floor.

Attendance at the dedication ceremonies also will give physicians and their families an opportunity to tour the entire village when, on May 30, the Medical Museum will take its place with the John Sappington Building; the restored George Caleb Bingham home, where this outstanding 19th Century genre artist painted many of his pictures with local citizens and background included; the famed Arrow Rock Tavern; the Old Courthouse; the John Sites Gun Shop; the old printing shop; the old Masonic Hall; and, among others, the 19th Century church which now is the home of the nationally known Repertory Theater which has run for 17 straight seasons.

Visitors will see many antebellum homes, such as the William Price House, the Dr. Charles Bradford House and the William B. Sappington House which have been restored at Arrow Rock. Dr. Lawrence personally purchased the Sappington House and has restored it to its pre-Civil War beauty.

The Doctor John Sappington Building also resulted from efforts of the Friends of Arrow Rock and was dedicated to "Dr. John Sappington, who made it possible for the white man to inhabit the vast central area of our country. He accomplished this amazing feat by introducing into the miasmatic middle west his quinine treatment for the 'Agu' which made it possible to colonize this rich section with Easterners pushing westward. . . . Dr. Sappington was a 19th century Missouri doctor

Dedicatory
Speaker

"Arrow Rock, known by the great and the near-great, the adventurous, the stout-hearted, the visionary of the 19th century, after years of oblivion in the 20th century, is coming to life and prominence again in these times."—JEAN TYREE HAMILTON



James C. Cope, M.D.

who had a powerful effect upon American history."

Dr. Thomas B. Hall, Jr., a former resident of Arrow Rock, figured prominently in the development of the Doctor John Sappington Building. He is the author of *Medicine on the Santa Fe Trail* (1972).

Even before Arrow Rock existed as such, the site was known and recognized as important. In mapping the Missouri River, the French cartographers marked Pierre a Fleche (Arrow Rock) as early as 1723. In going up river in 1804, Lewis and Clark commented on it. It was here that General Clark crossed with his Dragoons on the way to build Fort Osage in 1807.

In this compact frontier area over a 60-year period lived more men important in local, state and national affairs and development than in any one place except, possibly, Tidewater, Va. Among those men were Dr. John Sappington, pioneer physician, farmer and philanthropist; the Marmadukes, father and son who both were Governors of Missouri; Joseph Huston, Tavern builder and founder of a financial dynasty that exists today; Gen. Thomas A. Smith of 1812 fame; Claiborne Fox Jackson, Missouri's courageous wartime Governor; and George Caleb Bingham, artist.

In Missouri's role as "Mother of the West," Arrow Rock's streets saw the passing of thousands of canvas covered wagons for the Santa Fe Trail was the first of the great transcontinental trails and was the main line of travel across the state during the entire period of Western expansion.

During the 1800s, Arrow Rock was the most outstanding town financially, politically and socially west of the Mississippi River.

In 1964, the National Park Service, Department of the Interior, designated the Village of Arrow Rock as a National Historic Landmark because of its association with the beginning of the Santa Fe Trail. In 1972, it was chosen as the site for the filming of a musical "Tom Sawyer" by United

Artists because it had retained its 19th century flavor.

The Friends of Arrow Rock consists of a group of citizens who organized in 1961 to preserve history, restore old buildings and collect artifacts for posterity.

This not-for-profit organization has authorized the printing of copies of the original book, *The Theory and Treatment of Fevers* by Dr. John Sappington (1844) to be sold to help raise money to support the museums. The price of the book is \$7.50.

The cooperation of those in the medical profession is needed, Dr. Lawrence said, in collecting medical instruments, tools of pharmacy, medical books of that period and furniture for use in the country doctor's office and other memorabilia. He pointed out that all of these historical items should be preserved and displayed, which is the purpose of the Museum.

Anyone interested in this project, whether it be to purchase copies of *The Theory and Treatment of Fevers* or to donate artifacts, memorabilia or to make money donations are asked to contact Dr. John R. Lawrence, Arrow Rock 65320; Dr. E. Lee McCorkle, Marshall 65340; or Dr. C. A. McBurney, Slater 65349.

It is historically obvious that all pioneer doctors had an effect upon American history working under both physical and medical conditions that would now seem impossible.

As Dr. Lawrence has stated, "In some future time when men pause to assess the contributions of our historic heroes—certainly the medical men of the 19th Century who gave so much of themselves—should be given a great deal of recognition. They not only contributed so much to medicine, but, also, were many times the outstanding leaders of their communities."

Acknowledgement: MISSOURI MEDICINE expresses appreciation to Dr. John R. Lawrence and Jean Tyree Hamilton, author of "Arrow Rock, Where the Wheels Started West," for the historical information provided for this article.



Testing in Humans: Who, Where & When.

weight of ethical opinion:

ew would disagree that the effectiveness and safety of any therapeutic agent or device must be determined through clinical research.

But now the *practice* of clinical research is under appraisal by Congress, the media, and the general public. Who shall administer it? On whom are the products to be tested? Under what circumstances? How shall results be evaluated and reported?

The Pharmaceutical Manufacturers Association represents firms that are significantly engaged in the discovery and development of new medicines, medical devices and diagnostic products. Clinical research is essential to their efforts. Consequently, PMA formulated positions on this issue and submitted them on July 11, 1975, to the Subcommittee on Health of the Senate Labor and Public Welfare Committee, as official policy recommendations. These are the essentials of PMA's current thinking in this vital area.

1. PMA supports the mandate and jurisdiction of the National Commission for the Protection of Human Subjects of Medical and Behavioral Research and urges to establish a special committee composed of experts of appropriate disciplines familiar with the industry's research methodology to volunteer its advice to the Commission.

2. PMA supports the formation of an independent, expert, broadly based and representative panel to assess the current state of drug innovation and the impact of existing laws, regulations and procedures.

3. When FDA proposes regulations, it should prepare and publish in the *Federal Register* a detailed statement assessing the impact of those regulations on drug and device innovation.

4. PMA proposes that an appropriately qualified medical organization be encouraged to undertake a comprehensive study of the optimum roles and responsibilities of the sponsor and physician when company-sponsored clinical research is performed by independent medical investigators.

5. PMA recognizes that the physician-investigator has, and should have, the ultimate responsibility for deciding the substance and form of the informed consent to be obtained. However, PMA recommends that the sponsor of the experiment aid the investigator in discharging this important responsibility by providing (1) a document detailing the investigator's responsibilities under FDA regulations with regard to patient consent, and (2) a written description of the relevant facts about the investigational item to be studied, in comprehensible lay language.

6. In the case of children, the sponsor must require that informed consent be obtained from a legally appropriate representative of the participant. Voluntary consent of an older child, who may be capable of understanding, in addition to that of a parent, guardian or other legally responsible person, is advisable. Safety of the drug or device shall have been assessed in adult populations prior to use in children.

7. PMA endorses the general principle that, in the case of the mentally infirm, consent should be sought from both an understanding subject and from a parent or guardian, or in their absence, another legally responsible person.

8. Pharmaceutical manufacturers sponsoring investigations in prisons must take all reasonable care to assure that the facilities and personnel used in the conduct of the investigations are suitable for the protection of participants, and for the avoidance of coercion, with a respect for basic humanitarian principles.

9. Sponsors intending to conduct non-therapeutic clinical trials through the participation of employee volunteers should expand the membership and scope of its existing Medical Research Committee, or establish such an internal Medical Research Committee, with responsibility to approve the consent forms of all volunteers, designs, protocols and the scope of the trial. The Committee should also bear responsibility to ensure full compliance with all procedures intended to protect employee volunteers' rights.

10. Where the sponsor obtains medical information or data on individuals, it shall be accorded the same confidential

status as provided in codes of ethics governing health care professionals.

11. PMA and its member firms accept responsibility to aid and encourage appropriate follow-up of human subjects who have received investigational products that cause latent toxicity in animals or, during their use in clinical investigation, are found to cause unexpected and serious adverse effects.

12. PMA supports the exploration and development by its member companies of more systematic surveillance procedures for newly marketed products.

13. When a pharmaceutical manufacturer concludes, on the basis of early clinical trials of a basic new agent, that a new drug application is likely to be submitted, a proposed development plan accompanied by a summary of existing data, would be submitted to the FDA. Following a review of this submission, the FDA, and its Advisory Committee where appropriate, would meet with the sponsor to discuss the development plan. No *formal* FDA approval should be required at this stage. Rather, the emphasis should be on identification of potential problems and questions for the sponsor's further study and resolution as the program develops.

The PMA believes that health professionals as well as the public at large should be made aware of these 13 points in its Policy on Clinical Research. For these recommendations envisage constructive, cooperative action by industry, research institutions, the health professions and government to encourage creative and workable responses to issues involved in the clinical investigation of new products.



Pharmaceutical Manufacturers Association
1155 Fifteenth Street, N.W.
Washington, D. C. 20005

in Brief

A summary of AMA, medical & health news

American Medical Association / 535 North Dearborn Street / Chicago, Illinois 60610 / Phone (312) 527-1500 / TWX 910-221-0300

In a motion for summary judgment to dismiss a Federal Trade Commission complaint charging that the AMA's *Principles of Medical Ethics* act as a restraint of trade, the AMA said the FTC lacks jurisdiction to attempt to bar ethical restrictions on the solicitation of patients by physicians. The AMA held that it is not a trade association and noted that a similar case against the Kansas City Area Hospital Association was found to be outside the commission's jurisdiction. In that case, the courts held that the FTC did not have the legal authority to attempt to interfere with the operations of a nonprofit association. An administrative trial is scheduled to begin on October 18.

The AMA supported President Ford's plan to conduct a national immunization campaign against swine influenza virus. In a joint statement, AMA President Max H. Parrott, M.D. and Board of Trustees Chairman Raymond T. Holden, M.D., said, "The AMA stands ready to assist in the national campaign in any way possible, including organizing the medical profession to insure that every person who wants to be vaccinated will be—regardless of ability to pay."

New proposed utilization review regulations were published in the March 30 *Federal Register*. The rules replace those withdrawn last September after the AMA won a preliminary injunction to prevent their implementation on grounds that the rules governing hospital admission of Medicare and Medicaid patients constituted an unlawful interference with the rights of physicians and patients. There will be 60 days for comments on the new rules.

AMA-ERF granted loans totaling \$5,259,800 to 3,737 medical students, interns and residents through the AMA Education and Research Foundation Loan Guarantee Program during 1975. It was the biggest year for the program since 1966. Since the Loan Guarantee Program started in 1962, AMA-ERF has guaranteed 58,936 loans totaling \$69,368,098. AMA-ERF also awarded grants totaling \$1,275,000 to U. S. and Canadian medical schools.

The funds were contributed last year by physicians, AMA Auxiliary, medical societies and other sources. Funds designated for Canadian schools were contributed specifically for those schools.

The 18th National Conference on Medical Aspects of Sports will be on June 26 in Dallas, in conjunction with the AMA's Annual Convention. The registration fee is \$25 plus \$7 for the luncheon. For information, write to Dept. of Environmental, Public and Occupational Health, AMA Headquarters.

HEW has established a new office to smooth the way for regulations. The goal of the Office of Regulatory Review is to involve people who will be affected by regulations before the regulations are written. The office is considering a procedure called "notice of intent to publish proposed rule-making," under which an announcement of the intent to write regulations would be published in the *Federal Register*. The announcement would describe the issues to be covered and comments would be solicited.

Available from AMA: Cassette tapes of addresses presented at the 1976 AMA National Leadership Conference by HEW Secretary David Mathews, Newton Minow, Ivan Hill and Rep. Dan Rostenkowski (D-Ill.), and the discussion between Minow and AMA EVP James H. Sammons, M.D., on the FTC complaint. Send \$5 for each tape to Dept. of Radio, Television and Motion Pictures, AMA Headquarters. . . . *Psychoactive Drugs*, OP-455, a pamphlet, is available for 35¢ each for 1 to 99 copies; 21¢ each for 100 to 499; 20¢ each for 500 to 999; and 19¢ each for 1000 or more from Order Dept., AMA Headquarters. . . . *Planning Guide for Physicians' Medical Facilities*, an AMA booklet designed to answer questions asked by physicians considering construction of a medical office building. The cost of OP-439 is \$2 each for 1 to 10 copies; \$1.80 each for 11 to 49; and \$1.60 each for 50 or more. Write to Order Dept., AMA Headquarters.

Continuing Education Coming Events

The continuing medical education accreditation program of the MSMA has full approval by AMA's Council on Medical Education. The institutions and functions listed here qualify for Category I credit for the AMA Physician's Recognition Award. All accredited institutions in Missouri are invited to send this information for listing in MISSOURI MEDICINE. Please remember to include name of individual who can be contacted at your institution for additional information about your CME events.

Menorah Medical Center

4949 Rockhill Rd., Kansas City 64110
(816) 276-8095

Contact: Carol G. Hamilton, Coordinator

Nov. 10-12 Clinical Advances in Pediatrics

The Ed Bixby Institute for Postgraduate Medical Education Research Hospital and Medical Center

2316 E. Meyer Blvd., Kansas City 64132
(816) 276-4167

June 2 Adult Respiratory Distress Syndrome

St. Louis University Medical Center

Continuing Education
1402 S. Grand Blvd., St. Louis 63104
(314) 664-9800

Contact: John A. Grellner, Director

June 16-17 Human Sexuality: Consideration for Health Care, Teaching and Counseling
(Presented with St. Louis Unit. Missouri League for Nursing)

University of Missouri-Columbia School of Medicine

Continuing Education/Extension
M-175 Medical Center, Columbia 65201
(314) 882-2256

Contact: Gail Bank, Exec. Director

May 10-14 Methods of Analysis and Principles of Instrumentation in the Clinical Laboratory
(to be held in Kansas City)

May 16-22 Meeting of American College of Physicians

May 24-25 Fourth International Symposium on Intestinal Microecology

May 27-28 Cytology Workshop
(to be held in Kansas City)

University of Missouri-Kansas City School of Medicine— Kansas City Southwest Clinical Society

Continuing Medical Education
2220 Holmes St., Kansas City 64108
(816) 471-3876

Contact: Alta Bingham

May 14-15 Long Weekend—Cancer Management and Anemias Workshop

June 10-12 Symposium on Clinical Care

Sept. 13-17 Cardiology for the Consultant
(Sponsored by American College of Cardiology)

Sept. 24-25 Long Weekend—Dermatology/Gynecology

Oct. 21-23 Annual Fall Clinical Conference, K.C. Southwest Clinical Society

Nov. 19-20 Long Weekend—Neurology/Pharmacology

Dec. 8-11 The Heart-1976—Current Topics in Cardiology

Washington University School of Medicine

660 S. Euclid Ave., St. Louis 63110
(314) 454-2515

May 12-14 Current Cardiology: 1976

May 19 Surgical Problems in Children

May 22 Diagnosis and Treatment of Neuromuscular Diseases
(Presented with The Muscular Dystrophy Association and the Jerry Lewis Neuromuscular Research Center)

Nov. 12-14 Anesthesia and the Geriatric Patient

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Dr. Howard J. McAlhany Named MSMA President-Elect



Howard J. McAlhany, M.D., Springfield, was elected President-Elect of the Missouri State Medical Association on April 4 at the final meeting of the House of Delegates during the 118th Annual Session in Kansas City.

Max E. Franklin, M.D., St. Louis, was installed as President of the Association at the session.

Dr. McAlhany is a Past-President of Greene County Medical Society and has served eight terms as MSMA Eighth District Councilor. He is the Immediate Past-Chairman of the Council.

He has been involved in organized medicine for many years and is a member of the American Medical Association, Southern Medical Association, American College of Surgeons (Fellow), Southern Neurosurgical Society, Congress of Neurological Surgeons and Harvey Cushing Society.

Dr. McAlhany currently is serving on the Governor's Task Force on Malpractice, as Medical Director for the Greater Ozarks Area Chapter, Muscular Dystrophy Clinic from 1972-1976, is President of the Missouri Society of Neurological Surgeons for 1975-1976 and has served on the Springfield City Planning Council.

He received his B.S. degree at Clemson College and his M.D. degree at the Medical College of South Carolina. A neurological surgeon, he has served as president of the surgical staff at St. Johns Hospital in Springfield and was Battalion Surgeon with the United States Army in 1944-1946.

Dr. and Mrs. McAlhany are the parents of three daughters—Nancy C. Diggs, Marianne McAlhany and Sara Elizabeth McAlhany.

Before prescribing, please consult complete product information, a summary of which follows:

Indications: In adults, urinary tract infections complicated by pain (primarily pyelonephritis, pyelitis and cystitis) due to susceptible organisms (usually *E. coli*, *Klebsiella-Aerobacter*, *Staphylococcus aureus*, *Proteus mirabilis*, and, less frequently, *Proteus vulgaris*) in the absence of obstructive uropathy or foreign bodies. **Note:** Carefully coordinate *in vitro* sulfonamide sensitivity tests with bacteriologic and clinical response; add aminobenzoic acid to follow-up culture media. The increasing frequency of resistant organisms limits the usefulness of antibacterials including sulfonamides. Measure sulfonamide blood levels as variations may occur; 20 mg/100 ml should be maximum total level.

Contraindications: Children below age 12; sulfonamide hypersensitivity; pregnancy at term and during nursing period; because Azo Gantanol contains phenazopyridine hydrochloride it is contraindicated in glomerulonephritis, severe hepatitis, uremia, and pyelonephritis of pregnancy with G.I. disturbances.

Warnings: Safety during pregnancy not established. Deaths from hypersensitivity reactions, agranulocytosis, aplastic anemia and other blood dyscrasias have been reported and early clinical signs (sore throat, fever, pallor, purpura or jaundice) may indicate serious blood disorders. Frequent CBC and urinalysis with microscopic examination are recommended during sulfonamide therapy.

Precautions: Use cautiously in patients with impaired renal or hepatic function, severe allergy, bronchial asthma; in glucose-6-phosphate dehydrogenase-deficient individuals in whom dose-related hemolysis may occur. Maintain adequate fluid intake to prevent crystalluria and stone formation.

Adverse Reactions: Blood dyscrasias (agranulocytosis, aplastic anemia, thrombocytopenia, leukopenia, hemolytic anemia, purpura, hypoprothrombinemia and methemoglobinemia); allergic reactions (erythema multiforme, skin eruptions, Stevens-Johnson syndrome, epidermal necrolysis, urticaria, serum sickness, pruritus, exfoliative dermatitis, anaphylactoid reactions, periorbital edema, conjunctival and scleral injection, photosensitization, arthralgia and allergic myocarditis); G.I. reactions (nausea, emesis, abdominal pains, hepatitis, diarrhea, anorexia, pancreatitis and stomatitis); CNS reactions (headache, peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo and insomnia); miscellaneous reactions (drug fever, chills, toxic nephrosis with oliguria and anuria, periarteritis nodosa and L.E. phenomenon). Due to certain chemical similarities with some goitrogens, diuretics (acetazolamide, thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia. Cross-sensitivity with these agents may exist.

Dosage: Azo Gantanol is intended for the acute, painful phase of urinary tract infections. **Usual adult dosage:** 2 Gm (4 tabs) initially, then 1 Gm (2 tabs) B.I.D. for up to 3 days. If pain persists, causes other than infection should be sought. After relief of pain has been obtained, continued treatment with Gantanol (sulfamethoxazole) may be considered.

NOTE: Patients should be told that the orange-red dye (phenazopyridine HCl) will color the urine.

Supplied: Tablets, red, film-coated, each containing 0.5 Gm sulfamethoxazole and 100 mg phenazopyridine HCl—bottles of 100 and 500.



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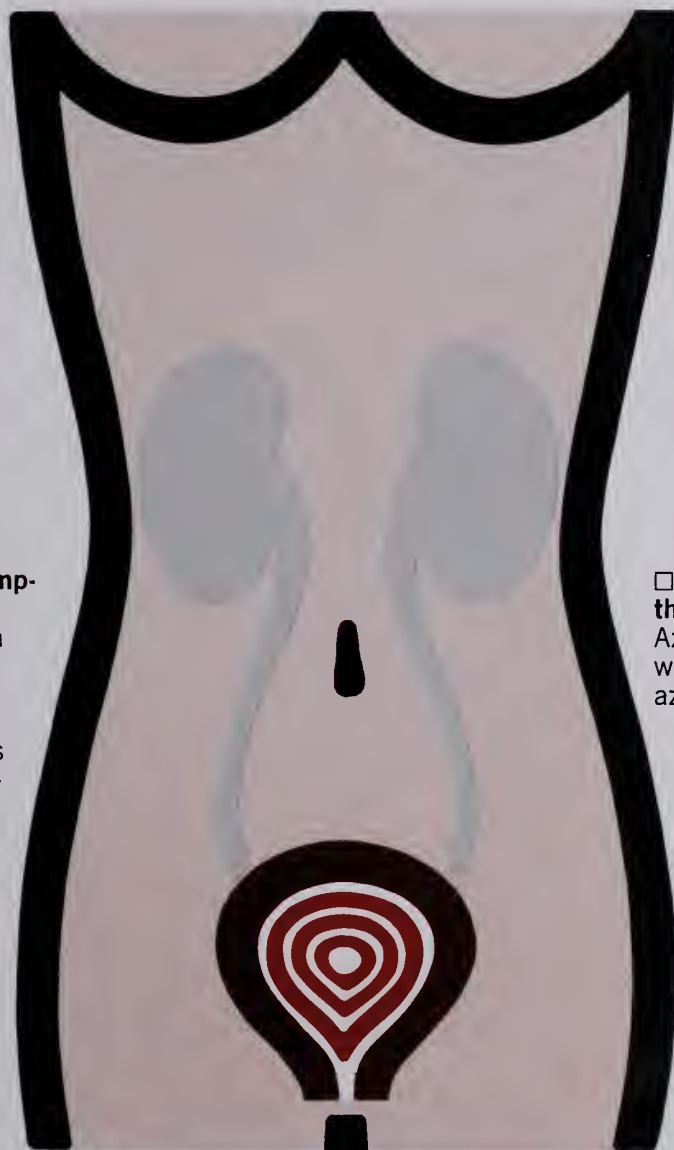
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☐ **Early relief of painful symptoms** such as burning and discomfort associated with urgency and frequency.

☐ **Effective control of susceptible pathogens** such as *E. coli*, *Klebsiella-Aerobacter*, *Staph. aureus*, *Proteus mirabilis* and, less frequently, *Proteus vulgaris*.

☐ **Appropriate antibacterial therapy:** up to three days with Azo Gantanol, then 11 days with Gantanol[®] (sulfamethoxazole).



*nonobstructed; due to susceptible organisms

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Serum K⁺ and BUN should be checked periodically. (See Warnings Section.)



Before prescribing, see complete prescribing information in SK&F literature or PDR. The following is a brief summary.

*** Warning**
This fixed combination drug is not indicated for initial therapy of edema or hypertension. Edema or hypertension requires therapy titrated to the individual patient. If the fixed combination represents the dosage so determined, its use may be more convenient in patient management. The treatment of hypertension and edema is not static, but must be reevaluated as conditions in each patient warrant.

*** Indications:** *Edema:* That associated with congestive heart failure, cirrhosis of the liver, the nephrotic syndrome; steroid-induced and idiopathic edema; edema resistant to other diuretic therapy. *Mild to moderate hypertension:* Usefulness of the triamterene component is limited to its potassium-sparing effect.

Contraindications: Pre-existing elevated serum potassium. Hypersensitivity to either component. Continued use in progressive renal or hepatic dysfunction or developing hyperkalemia.

Warnings: Do not use dietary potassium supplements or potassium salts unless hypokalemia develops or dietary potassium intake is markedly impaired. Enteric-coated potassium salts may cause small bowel stenosis with or without ulceration. Hyperkalemia (>5.4 mEq/L) has

been reported in 4% of patients under 60 years, in 12% of patients over 60 years, and in less than 8% of patients overall. Rarely, cases have been associated with cardiac irregularities. Accordingly, check serum potassium during therapy, particularly in patients with suspected or confirmed renal insufficiency (e.g., elderly or diabetics). If hyperkalemia develops, substitute a thiazide alone. If spironolactone is used concomitantly with 'Dyazide', check serum potassium frequently—both can cause potassium retention and sometimes hyperkalemia. Two deaths have been reported in patients on such combined therapy (in one, recommended dosage was exceeded; in the other, serum electrolytes were not properly monitored). Observe patients on 'Dyazide' regularly for possible blood dyscrasias, liver damage or other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving Dyrenium (triamterene, SK&F). Rarely, leukopenia, thrombocytopenia, agranulocytosis, and aplastic anemia have been reported with the thiazides. Watch for signs of impending coma in acutely ill cirrhotics. Thiazides are reported to cross the placental barrier and appear in breast milk. This may result in fetal or neonatal hyperbilirubinemia, thrombocytopenia, altered carbohydrate metabolism and possibly other adverse reactions that have occurred in the adult. When used during pregnancy or in women who might bear children, weigh potential benefits against possible hazards to fetus.

Precautions: Do periodic serum electrolyte and

BUN determinations. Do periodic hematologic studies in cirrhotics with splenomegaly. Anti-hypertensive effects may be enhanced in post-sympathectomy patients. The following may occur: hyperuricemia and gout, reversible nitrogen retention, decreasing alkali reserve with possible metabolic acidosis, hyperglycemia and glycosuria (diabetic insulin requirements may be altered), digitalis intoxication (in hypokalemia). Use cautiously in surgical patients. Concomitant use with antihypertensive agents may result in an additive hypotensive effect. 'Dyazide' interferes with fluorescent measurement of quinidine.

Adverse Reactions: Muscle cramps, weakness, dizziness, headache, dry mouth; anaphylaxis; rash, urticaria, photosensitivity, purpura, other dermatological conditions; nausea and vomiting (may indicate electrolyte imbalance), diarrhea, constipation, other gastrointestinal disturbances. Necrotizing vasculitis, paresthesias, icterus, pancreatitis, xanthopsia and, rarely, allergic pneumonitis have occurred with thiazides alone.

Supplied: Bottles of 100 capsules; in Single Unit Packages of 100 (intended for institutional use only).

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- Antivert/25 (meclizine HCl) 25 mg. *Chewable* Tablets for nausea, vomiting and dizziness associated with motion sickness.

BRIEF SUMMARY OF PRESCRIBING INFORMATION

*INDICATIONS. Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows:

Effective: Management of nausea and vomiting and dizziness associated with motion sickness.

Possibly Effective: Management of vertigo associated with diseases affecting the vestibular system.

Final classification of the less than effective indications requires further investigation.

CONTRAINDICATIONS. Administration of Antivert (meclizine HCl) during pregnancy or to women who may become pregnant is contraindicated in view of the teratogenic effect of the drug in rats.

The administration of medicine to pregnant rats during the 12-15 day of gestation has produced cleft palate in the offspring. Limited studies using doses of over 100 mg./kg./day in rabbits and 10 mg./kg./day in pigs and monkeys did not show cleft palate. Congeners of medicine have caused cleft palate in species other than the rat.

Meclizine HCl is contraindicated in individuals who have shown a previous hypersensitivity to it.

WARNINGS. Since drowsiness may, on occasion, occur with use of this drug, patients should be warned of this possibility and cautioned against driving a car or operating dangerous machinery.

Usage in Children: Clinical studies establishing safety and effectiveness in children have not been done; therefore, usage is not recommended in the pediatric age group.

Usage in Pregnancy: See "Contraindications."

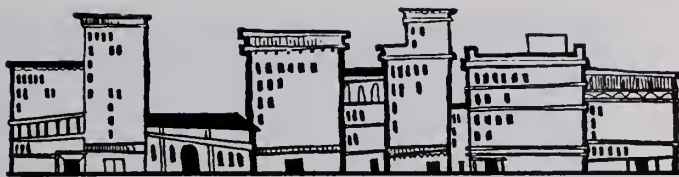
ADVERSE REACTIONS. Drowsiness, dry mouth and, on rare occasions, blurred vision have been reported.

More detailed professional information available on request.

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From the Medical Schools



ST. LOUIS UNIVERSITY

Two major appointments have been announced recently at the St. Louis University Medical Center.

A. *Stephen Coburn* has been named assistant vice-president for the Medical Center by *George E. Thoma, M.D.*, vice-president. The appointment became effective March 1.

Mr. Coburn has had wide and varied experience, not only in fiscal affairs, but also in the academic aspects of business, health and health care delivery. In his capacity as assistant vice-president for the Medical Center, he will have specific responsibility for the fiscal and business affairs of the Medical Center.

Before accepting the position at St. Louis University, Mr. Coburn was deputy coordinator of the Bi-State Regional Medical Program and concurrently was deputy director of Health Delivery Systems, Inc. He also was instrumental in the development of the Greater St. Louis Health Systems Agency, which will replace existing health planning agencies.

Melvin Charles Nicholson has been appointed Manager of Professional Practice for the School of Medicine by *David R. Challoner, M.D.*, Dean.

As Manager of Professional Practice, Mr. Nicholson will exercise full authority over the financial and administrative aspects of the professional practice of the full-time clinical faculty. He also will be responsible for implementing the management systems necessary to assure the efficient and economical operation of the University Health Center/Doctors' Offices Building and will report directly to the Dean.

Phi Delta Epsilon fraternity of the School of Medicine conducted the Seventh Annual Children's Clinic on March 13 at the St. Louis Veterans Administration Hospital (John Cochran). Approximately 120 children were given free medical examinations in the clinic program which is cosponsored by Morro House, a student organization of the University.

Medical students of the fraternity conducted the examinations under the supervision of *Simon Horenstein, M.D.*, professor and chairman, Department of Neurology, and several other members of the School of Medicine.

UNIVERSITY OF MISSOURI-KANSAS CITY

On March 3, 20 students and ten faculty members returned from a three-week visit to the People's Republic of China as guests of the China Medical Association. The delegation was led by *Dr. and Mrs. E. Grey Dimond*, who have made four visits to China. The group from UMKC travelled widely, was received with open hospitality and was able to study thoroughly medical care and medical education. This delegation was the first of its type to visit China.

The Medical School enjoyed the contributions of three physicians as Visiting Docents recently. Each joined on clinical rounds, met with students and faculty in seminars and presented a special lecture.

Dr. George Silver, Professor of Public Health at Yale University, discussed "Health Policy and Medical Politics: Congress and the Medical Profession."

Dr. Lawrence L. Weed, Professor of Community Medicine and Director of the Problem-Oriented Medical Information System Laboratory at the University of Vermont, spoke at University Hour on "The Tools and Premises of Medical Education."

Dr. John Z. Bowers, president of the Josiah Macy, Jr. Foundation, discussed "The Historical Influences on the Development of American Medicine."

These three Visiting Docents joined the group of experienced physicians who are invited throughout the year to contribute to the educational programs of the school, to observe and to offer suggestions for improvements.

Dr. Richardson K. Noback, Dean of the Medical School, has been invited to serve as Chairman of the Biomedical Library Review Committee of the National Library of Medicine. Dean Noback has been a member for the last two years of this Review Committee.

WASHINGTON UNIVERSITY

Ronald G. Evens, M.D., Elizabeth Mallinckrodt Professor and head of the Department of Radiology and Director of the Mallinckrodt Institute of Radiology at the School of Medicine, has been named president-elect of the Missouri Radiological Society, the state chapter of the American College of Radiology.

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ROBERT L. JACKSON, M.D., *Columbia*

Relationship of Obesity to Diabetes

OBESITY is the most common nutrition problem in developed countries of the world including the United States. The development of techniques for the earliest identification of abnormal development of the fat depot and the institution of therapeutic measures to alter the development of this tissue before immutable hypercellularity occurs offer the best hope for the treatment of obesity in both children and adults. It is desirable to prevent rather than treat obesity. It may be that obesity in infancy and childhood insidiously develops into diabetes. Indeed, the duration and degree of obesity in childhood and early adult life may even be the cause of maturity onset diabetes in later life.

A high proportion of children who are obese from infancy and early childhood grow into obese adults.¹⁻⁵ Obesity is known to be intimately interrelated with maturity onset diabetes in later years. Joslin Clinic⁶ series report that nearly 50% of adults with diabetes had birth weights over 4 kg. Consequently, one of the attempts at prevention of maturity onset diabetes lies in the early recognition and correction as well as prevention of obesity in infancy and childhood.

Diabetes during pregnancy is known to affect profoundly the status of the infant at birth, i.e., many infants of diabetic mothers are large, overweight and obese. Infants of diabetic mothers at six months of age or less were found to be hypercellular in regard to adipocytes and three of the five infants studied remained grossly obese at 18 months of age.⁷

Improved criteria to define the normal range of body fat for healthy children are needed. Until more precise data are available, it is impossible to make a definitive diagnosis of obesity until the disorder is moderately advanced. Whole body potassium measurement is a useful noninvasive technique to assess the degree of body fat without using radioactive isotopes.

Because of association of hyperinsulinemia in the presence or absence of glucose intolerance in obese subjects, peripheral resistance to the action of insulin has been suggested. In fact, direct correlations

Obesity is the most common nutrition problem in the United States and other developed countries. All studies support the contention that food habits formed in early childhood and emotional stresses are major factors in controlling food intake. The development of more reliable clinical methods for earlier identification of obesity and the institution of therapeutic measures to alter the rate of development of fat cells before immutable hypercellularity occurs offer the best hope for the prevention of obesity in both children and adults. Therapeutic failure in treating most obese adults confirms the desirability of prophylaxis.

Dr. Jackson is Professor, Department of Child Health, University of Missouri School of Medicine.

have been found between the degree of adiposity,⁸ the increased size of fat cells⁹⁻¹¹ and the elevated plasma insulin levels in obese subjects. It has been reported that obese individuals are relatively resistant to the effect of insulin^{12, 13} and the enlarged fat-filled cells of obese subjects are relatively insulin insensitive.¹⁴ Although Grey and Kipnis¹⁵ reported that hyperinsulinemia characteristic for obesity could result partly from dietary factors, Salans *et al*¹⁶ have recently shown that adipose tissue from obese subjects is less responsive to insulin than adipose tissue from normal weight subjects when both are maintained on similar diets.

In the past few years, many reports which have appeared in literature suggest that insulin insensitivity associated with obesity could result from a decreased insulin binding. Although decreased insulin binding has been shown by Marinetti *et al*¹⁷ in circulating lymphocytes and by Archer *et al*¹⁸ in the human fat cells in obese individuals, a recent detailed study by Amatruda *et al*¹⁹ to compare the number and affinity of insulin receptors in adipocytes from normal and obese human subjects failed to demonstrate such a change. Despite numerous studies, the exact nature of insulin insensitivity associated with obesity remains uncertain.

E. E. Joss, University of Children's Clinic, Bern, Switzerland, has limited data to indicate that the threshold for insulin secretion in the obese adolescent is a direct function of body fat content as measured by K-40 counting.²⁰ A correlation between total body weight and fasting levels of insulin has been documented in adults.²¹ However, other investigators have been unable to demonstrate a correlation between fasting levels of insulin and body fat in obese adolescents.^{22, 23} Para *et al*, in an excellent study, have observed hyperinsulinemia and increased lipogenesis in 17 obese, non-diabetic children seven to 17 years of age as compared to eight normal children of comparable ages.²⁴ Twelve of the 17 obese children with long standing obesity had hyperinsulinemia and elevated free fatty acids after intravenous infusion of arginine, whereas five of the children with obesity of short duration had normal fasting levels of insulin and normal response to intravenous arginine.

We have observed that most children whose body weights are more than 35% of expected weight for height have increased levels of serum insulin (basal insulin level as reactive insulin response to an oral glucose load). A few children (normal children as well as siblings) whose weights were within $\pm$ S.D. as defined above had increased insulin levels (basal and reactive). As previously

stated, the height-weight relationships do not provide a reliable means for defining the degree of body fat. Our studies indicate that age, body composition and rate of growth are major factors relating to incidence of glucose intolerance.

Recently, we improved the standardization of our OGTT procedure and are redefining our method of interpretation of the tests in children. On a limited number of the children who have had the more standardized OGTT, we also have made body composition determination using the K-40 technique. Very preliminary data suggest a correlation between the degree of body fat expressed in relation to height and serum insulin values (basal as well as reactive insulin response to an oral glucose load). This method of assessing degree of body fat appears to be more accurate than using lean body mass in relation to body weight,²⁵ as follows:

$$\frac{\text{Height in cms.}}{\text{K gms/kg body weight}}$$

Our basic premise is that derangement in the insulin mechanism may begin in infancy or even in utero and progresses in episodic fashion (and, perhaps, at times regresses) over the individual's entire life span.

Most of our habits, including use of food, are formed in early childhood, and the emotional pattern of a child is difficult to change after five to six years of life. Therapeutic failure in treating obese adults confirms the desirability of prophylaxis. All studies support the contention that food habits and emotional stresses are major factors in controlling food intake. The development of technique for the earliest identification of abnormal development of the fat depot and the institution of therapeutic measures to alter the development of this tissue before immutable hypercellularity occurs offers the best hope for the treatment of obesity in both children and adults.

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(Continued on page 226)

MARIANO VALDES, M.D., FRANK R. VICTOR, M.D.

and WALTER H. JACOBS, M.D., *Kansas City*

Nonsurgical Removal of Bile Duct Stones Utilizing the Duodenoscope

Case Report

ZIMMON, FALKENSTEIN AND KESSLER¹ reported on a series of 44 patients studied by endoscopic retrograde cannulation of the papilla of Vater (ERCP) and all were shown to have calculi in the bile ducts. In five of the 44 patients, stones were not found at subsequent surgery. This suggested that merely dilating the normal papilla may facilitate the passage of small stones. This is a report of the removal and retrieval of small pigment stones in an elderly lady who had undergone three prior surgical procedures, as follows:

1. Cholecystectomy.
2. Dilatation of the common duct with Bakeš dilators.
3. Subsequent implantation of the right hepatic duct into the duodenum for hepatic duct stricture.

The stones were removed from the implanted right hepatic duct after first stretching the duct open by using the biopsy forceps inserted into the duct through an Olympus JFB duodenoscope.

CASE REPORT

A 70-year-old white woman underwent a cholecystectomy for calculous disease in 1955. In 1962, her common duct was explored and the distal end dilated with Bakeš dilators for an apparent stricture. In 1967, a third operation was performed for cholangitis and hepatic duct obstruction. The obstructed right hepatic duct was anastomosed to the superior aspect of the proximal duodenum.

In 1972, she returned to our hospital because of acute abdominal pain, chills and fever (37.5 C). At that time, her alkaline phosphatase level was 165 IU; serum glutamic oxaloacetic transaminase (SGOT), 250; total bilirubin, 1.2; serum glutamic pyruvic transaminase (SGPT), 47; and lactic acid dehydrogenase (LDH), 200. She had leukocytosis (19,000) with a "shift to the left." An intravenous cholangiogram (IVC) was done and the results were reported as normal. The patient was treated with tetracycline and dis-

Bile duct stones frequently are a problem in the elderly. This case report demonstrates that some biliary tract stones can be removed safely by a nonsurgical procedure with the help of peroral endoscopy. It is expected that additional experience and more refined instruments will result in a more dramatic therapeutic role for this procedure. Dr. Valdes is a Resident in Medicine, Dr. Victor is from the Radiology Department and Dr. Jacobs is Chairman of the Department of Medicine at Menorah Medical Center.

charged from the hospital "in good condition" one week later.

In 1974, the patient returned again with right upper quadrant pain, chills and fever (38.5 C). White blood cell count (WBC) was 15,400; bilirubin, 0.9; SGOT, 110; alkaline phosphatase, 160; and SGPT, 45. After five days of treatment with tetracycline, she improved and left.

We saw the patient for the first time in April, 1975. She had an acute attack of right upper quadrant pain, chills, fever (39.2 C), nausea and vomiting. WBC was 12,800; alkaline phosphatase, 230; bilirubin, 1.2; and SGOT level of 40 on admission (but later elevated to 276). There was increased urobilinogen in the urine. IgA, IgG, IgM, mucoprotein, antismooth muscle antibodies and antimitochondrial antibodies were normal. She was anemic with a hemoglobin level of 8.8 gm/100 ml. Blood cultures grew *E. coli* and *Klebsiella*, which was sensitive to cephaloridine and gentamicin. As on prior admissions, the patient improved after one week of treatment.

On June 25, the patient again returned with right upper quadrant pain, chills, temperature (37.5 C), nausea and vomiting. The WBC was 12,500/cu mm; alkaline phosphatase, 230; and SGOT, 52. A liver scan was done and was reported as normal. A percutaneous transhepatic cholangiogram with the Okuda needle showed three filling defects in the right upper hepatic arcade, slight dilatation of the intrahepatic portion of the collecting system and a question of distal stenosis



Fig. 1 Percutaneous transhepatic cholangiogram shows dilated right hepatic ductal system containing radiolucent area (arrow) and narrowed distal end of site of implantation.



Fig. 2 Nonobstructed common bile duct filled with contrast medium.



Fig. 3 (Arrow) Black area on superior wall in second portion of the duodenum. This proved to be impacted pigment stone.

of the right duct (Fig. 1). There was free flow into the duodenum. The left duct was not visualized. Two days later, ERCP was performed. The Olympus duodenoscope (JFB) was passed without difficulty into the duodenum. The papilla was then visualized and a retrograde cholangiogram was done after cannulation. The common bile duct was visualized. Although dilated it was not obstructed and was free of stones (Fig. 2).

On the superior aspect of the proximal second portion of the duodenum, a black area was seen and initially thought to be suture material from a previous operation. Closer inspection revealed bile flowing around it, and the possibility of an impacted stone (black in color) was entertained (Fig. 3). The cannula was inserted into this area, dye was injected and the right hepatic duct was seen to be dilated. Many filling defects were clearly seen (Figs. 4 and 5). The biopsy forceps were passed through this new orifice (Fig. 6) and the orifice was dilated by spreading open the biopsy forceps and pulling and pushing the open forceps gently back and forth through the anastomotic site. Three stones quickly fell through the widened aperture and could be removed with the help of the instrument's suction apparatus (Fig. 7).

Since the procedure, the patient's temperature has remained low and she has been completely free of any symptoms. Her appetite has improved. To date, there has been no recurrence of any of her prior complaints.

DISCUSSION

As early as 1958, there were reports of the removal of biliary stones with the aid of nonsurgical procedures. However, these followed surgery with a "T-tube" in place.

Torresyap² described the technique of instilling chloroform into the bile ducts to dissolve stones. Lansford, Sunder and Kern³ advocated the infusion



Fig. 4 (Arrow) Dilated right hepatic duct filled with contrast medium.



Fig. 5 Another view of dilated right hepatic ductal system containing multiple radiolucent shadows (arrows).



Fig. 6 (Arrow) Biopsy forceps protruding from scope into right hepatic duct.

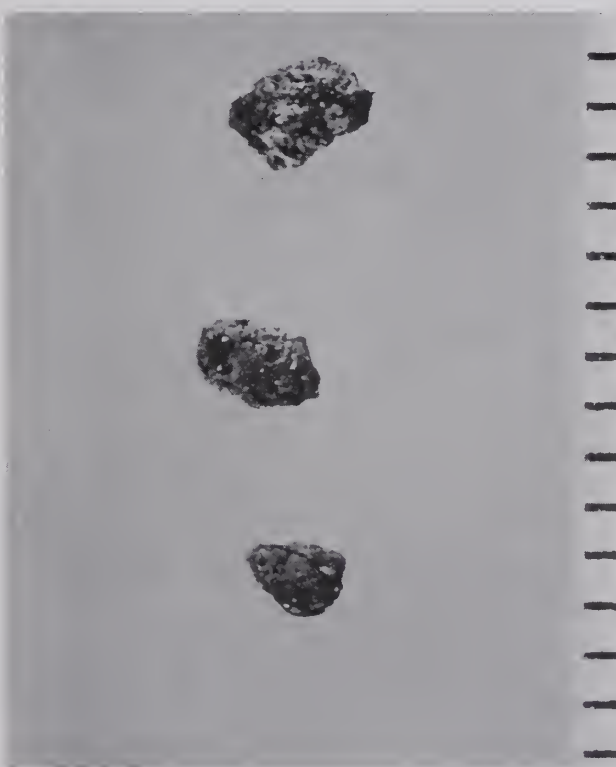


Fig. 7 Three pigment stones recaptured from duodenum after being expelled from right hepatic duct. Line spaces are 1 mm apart.

of sodium cholate through a "T-tube."

In 1974, Kawai^{4, 5} reported a new bloodless method for the removal of gallstones in the common bile duct by combining endoscopy and electrosurgical sphincterotomy of the ampulla of Vater. Nine patients healed successfully and safely without recognized complications.

In the same year, Classen⁶ also reported his experience with this new method.

The complications reported to date are minimal. From Kawai^{4, 5} and Classen,^{6, 7} we know that there were no apparent signs of perforation, bleeding or cholangitis.

In the series of Oi and Maruyana,⁸ there were reported minimal complications (0.07%) after duodenoscopy alone and 0.98% after ERCP.

This report demonstrates that some biliary tract stones can be removed safely by a nonsurgical procedure with the help of peroral endoscopy.

Probably in the near future, after greater experience and more refined instruments, a more dramatic therapeutic role for this procedure can be expected.

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(Continued from page 222)

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MSMA President-Elect to Speak to Missouri Surgeons

The Missouri Chapter, American College of Surgeons will hold its Ninth Annual Professional Meeting on June 11-12 at Crown Center in Kansas City. The registration desk will open at 7:30 AM on June 11 and the professional meeting will begin at 8:30 AM.

Howard J. McAlhany, M.D., Springfield, will discuss "Our Current Legislative Status Regarding Medical Malpractice in Missouri" as guest speaker at the 7 AM Breakfast on June 12. Dr. McAlhany is President-Elect of the Missouri State Medical Association and a member of the Governor's Task Force on Malpractice.

Polyneuritis Cranialis as the Sole Manifestation of the Guillain-Barré Syndrome

EXCEPTIONALLY, the cranial nerves may be affected alone in acute idiopathic postinfectious polyradiculoneuropathy. (Also referred to as the Guillain-Barré Syndrome.) Guillain¹ named this exclusive type "la forme mesencéphalique pure." We found only one patient who had cranial neuropathy exclusively in a review of 100 cases meeting the following criteria:²

1. The paralytic illness may follow a nonspecific infection, but there is no preceding or accompanying illness of a type known or thought to be associated with polyradiculoneuropathy;
2. Sensory involvement may occur but is less severe than motor impairment;
3. Diffuse lower motor neuron paresis (a) usually has rapid onset, (b) often is ascending, (c) usually is symmetrical, (d) may be proximal or distal or both;
4. Ten or fewer white blood cells per cubic millimeter are in the cerebrospinal fluid;
5. Protein of 60 mg per 100 ml of cerebrospinal fluid or higher.

Paralysis of individual facial nerves and facial diplegia was described by Christison³ in 1834 and reviewed by Pierreson⁴ in 1867. Osler⁵ noted that "in acute febrile polyneuritis, paralysis may extend to the muscles of the face." In 1894, Targowla⁶ and later, Patrick⁷ emphasized the frequency of facial diplegia in association with polyneuritis of the limbs. Unilateral facial palsies in conjunction with polyneuritis of extremities were reported in 1909 by Cowan,⁸ and there are contemporaries who consider idiopathic Bell's palsy to be a limited form of the Guillain-Barré Syndrome.⁹

In 1932, Collier¹⁰ described external ophthalmoplegia and peripheral neuritis with rapid complete recovery. Five years later, Van Bogaert¹¹ introduced the combination of ophthalmoplegia and albuminocytologic dissociation as part of the Guillain-Barré Syndrome. In 1956, Fisher¹² documented three patients with external ophthalmoplegia, ataxia and areflexia but with relative sparing of the levator

palpebrae and pupillary reflexes and recovery of vertical gaze before lateral gaze. Subsequent reports have included facial paralysis, internal ophthalmoplegia during acute polyneuritis and various combinations of the above plus sundry additions.¹³⁻¹⁵ Characteristics of this syndrome are as follows:

1. Acute, bilateral, fairly symmetrical ophthalmoparesis progressing to subtotal or total external ophthalmoplegia with variable degrees of internal ophthalmoplegia;
2. Relatively little degree of involvement of other cranial nerves;
3. Gait ataxia, usually without appreciable motor weakness or sensory deficits;
4. Generalized hyporeflexia or areflexia;
5. Cerebrospinal fluid findings of relatively few or no cells with mild to moderate increase in protein values;
6. A benign course with rapid fairly complete recovery within weeks to months after onset.

Elizan¹⁵ likens this disorder to acute idiopathic (postinfectious) polyradiculoneuropathy except for emphasis on ophthalmoplegia and ataxia. Further differences personally noted are the tendency for this syndrome to occur in epidemics or during an acute illness. Also, many published case reports have not had elevated cerebrospinal fluid protein and the differentiation between cerebellar ataxia, and the asynergia of weakness often is difficult. In general, when ophthalmoplegia occurs with polyradiculoneuropathy, other cranial nerves concomitantly are affected, but ataxia is rarely observed.^{2, 16, 17}

Ophthalmoplegia, limb weakness, areflexia and an elevation of cerebrospinal fluid protein may be features of acute disseminated encephalomyelitis and acute cerebellar ataxia of childhood and adults.¹⁸ Perhaps all of these disease complexes share a common pathogenic basis—a variable immunologic response of the nervous system. Supporting this view are the voluminous reports on

This is a case report of a 36-year-old white woman with multiple cranial nerve palsies, no limb numbness or ataxia and a spinal fluid albuminocytologic dissociation constituting the pure cranial nerve form of the Guillain-Barré Syndrome. The diagnosis and treatment of polyneuritis cranialis are discussed. Dr. McFarland is Assistant Clinical Professor in Neurology, University of Kansas Medical Center; Consultant in Neurology, Kansas City Veterans Administration Hospital; and Instructor in Medicine, University of Missouri-Kansas City School of Medicine and Children's Mercy Hospital.

experimental allergic encephalomyelitis and neuritis and the recent evidence suggesting that idiopathic polyradiculoneuropathy is a cell-mediated immunologic disorder in which myelin predominantly is attacked by sensitized lymphocytes.¹⁹

The following case report concerns a patient with multiple cranial nerve palsies, no limb weakness or ataxia and spinal fluid albuminocytologic dissociation constituting the "mesencephalic" form of the Guillain-Barré Syndrome.

CASE REPORT

A 36-year-old white woman was admitted to St. Mary's Hospital on Oct. 14, 1969. Two weeks prior to admission, she had an upper respiratory infection and concomitantly developed a ptosis of the left eye. She received 500 mg of potassium penicillin G orally and daily for four days, and her upper respiratory infection improved but the ptosis persisted. Furthermore, she gradually developed ptosis of the right eye, dysphagia, dysphonia and facial weakness. An edrophonium chloride (Tensilon) test resulted in no apparent improvement. Nonetheless, due to the progression of weakness, she was admitted with the provisional diagnosis of myasthenia gravis. Past history was entirely negative for any surgery, illness or injuries. Prior to the onset of this illness, she had taken no medications and had had no gastrointestinal disturbance or upper respiratory infection. Family and social history were negative except for the loss of her husband in 1966 as the result of an automobile accident. She had two healthy children.

Her physical examination on admission, except for the neurological findings, was within normal limits. She showed a bilateral ptosis, complete on the left and almost complete on the right with a fairly full range of extraocular muscle movement. She had weak facial muscles bilaterally, a nasal tone to her voice, active and equal deep tendon reflexes and no sensory loss or cerebellar dysfunction. She was seen in neurologic consultation on Oct. 17, 1969. At this time she had a com-

plete ptosis of the left eyelid and partial ptosis of the right eyelid with equally dilated pupils that reacted poorly to light and in accommodation. The extraocular movements were profoundly limited bilaterally with no movement of the external recti. She had a bilateral facial palsy and only a fair elevation of the soft palate. However, little involvement of the ninth and tenth cranial nerves was discernible and the fifth, eighth, 11th and 12th nerves functioned normally. Her extra-cranial motor functions, including cerebellar, and sensory examination were normal. The reflexes were brisk in the arms and legs, except for the left ankle jerk which was decreased. Bilateral unsustained patellar clonus could be obtained, but the plantar responses were flexor. Mental examination was entirely normal, except for an appropriate concern relative to her facial weakness. It was concluded that her ophthalmoparesis was progressing since admission.

Results of the following laboratory tests were normal: complete blood count, Venereal Disease Research Laboratory, calcium, phosphorus, glucose, blood urea nitrogen, uric acid, cholesterol, total protein, albumin, total bilirubin, alkaline phosphatase, lactic dehydrogenase, serum glutamic oxalacetic transaminase, sodium, potassium and carbon dioxide. Urinalysis revealed no porphobilinogen or copro- or uroporphyrin, but did display a positive acetone and a few bacteria and mucus with very few white blood cells or red blood cells. Skull and chest x-rays were normal. The spinal fluid on admission had 2 lymphocytes; 29 red blood cells; glucose, 71; protein, 82; colloidal gold curve, 0122210000; Pandy positive; and serology, non-reactive. Spinal fluid electrophoresis showed albumin, 51.4%; alpha-1, 10.9%; alpha-2, 8.5%; beta globulin, 9.9%; and gamma globulin, 19.4%. The alpha-1 and gamma globulin were elevated and the beta globulin decreased for this laboratory. A repeat spinal fluid examination on October 23 while the patient was receiving corticotropin revealed 1 lymphocyte; 2 red blood cells; glucose, 62; protein, 42; colloidal gold curve, 0122210000; and serology, nonreactive.

Course in the hospital: Throughout her hospital stay, her vital signs remained within normal limits. On the day of admission, neostigmine bromide test (1 ml 1:2000 1 M) was negative and treatment with 15 mg of neostigmine bromide given orally three times daily on October 15-16 also was ineffectual. On October 17, 40 USP Units of aqueous corticotropin (ACTH) were begun intramuscularly every 12 hours with 300 mg tablets of potassium chloride three times a day and a Maalox #2 tablet between meals and at bedtime. After one week of treatment, she began to elevate her right eyelid and look up slightly. On October 28, improved range of extraocular movements in the right eye occurred and the ACTH was gradually reduced. Voluntary contraction of the facial muscles and nearly complete range of extraocular movements in the right eye occurred on November 3. During her hospitalization from October 17 to November 7, she administered daily physical therapy to her facial muscles to maintain tone and she received vitamin supplements. At dismissal (off ACTH), pupillary and extraocular movements were nearly normal, but a moderate left ptosis

and a slight left facial weakness persisted. Her recovery was complete on Jan. 26, 1970.

A follow-up examination on July 23, 1975 revealed that she has had no recurrence or other neurological disease.

DISCUSSION

A painless, bilateral, cranial polyneuropathy evolving without any other discernible nervous system or internal illness is a rare and perplexing disorder. Of primary concern are the recognition and remedy of life-threatening conditions which can affect vital centers in the brain stem or muscles of respiration. Having excluded by careful history and examination injurious inhalants (glue, carbon monoxide and others), ingestants (contaminated food, alcohol and others) and inoculants (drugs, vaccines, and others), the two potentially fatal diseases to be considered are myasthenia gravis and the Guillain-Barré Syndrome. These patients should be treated in facilities equipped with apparatus for assistive respiration. If there is still any question of muscle fatigue, after the initial evaluation, an edrophonium hydrochloride test is performed since the bulbar form of myasthenia gravis can be rapidly fatal. This is most important since steroids may exacerbate myasthenia and may be prescribed for polyradiculoneuropathy. Although the cranial nerves are rarely exclusively involved in the Guillain-Barré Syndrome, weakness initially may be apparent in facial muscles and later appear in the limbs with sudden respiratory distress. Respiratory failure is the most common cause of morbidity in this syndrome and is preventable.²⁰

Having excluded other causes for multiple cranial nerve palsies, a normal spinal fluid protein within the first two weeks of the paralytic disease should not dissuade the physician from a presumptive diagnosis of a Guillain-Barré disease, since the protein gradually rises to reach a plateau between the second and fifth week after onset of weakness and before this, normal values are common.^{2, 20} This patient had a significantly elevated protein obtained 17 days after onset of the paralytic signs, but while she was receiving ACTH one week later, her protein had become normal. Since high doses of ACTH or glucocorticoids often lower the spinal fluid protein, repeat spinal taps may not be helpful in making the diagnosis after treatment is begun.²⁰

The argument about whether or not to employ steroids has not been resolved.²¹ Once steroids are instituted, the dose should be tapered with great care.²² Deaths and rapid progression of weakness, including the muscles of respiration, have been observed following sudden discontinuance.

SUMMARY

A woman with polyneuritis cranialis and albuminocytologic dissociation without sensory, motor or cerebellar dysfunction in the extremities is presented as the pure cranial nerve form of the Guillain-Barré Syndrome. The diagnosis and treatment are discussed.

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Mass in the Neck—A Diagnostic Challenge

THE EVALUATION of a mass in the neck encompasses a wide variety of diagnostic possibilities. It is a common presenting symptom or sign to family physicians, internists, pediatricians, surgeons and specialists alike. The common denominator is a concern of both patient and physician that this mass may represent a malignant process.

The goal in the diagnosis of a neck mass is to separate the benign from the malignant and the surgical from the nonsurgical. By utilizing a basic series of diagnostic tests coupled with a precise history and physical examination, one may arrive at the diagnosis more than 90% of the time.

The first step is to obtain an accurate and pertinent history. The age of the patient, the duration and growth pattern of the mass, prodrome or injury and a general review of systems will give valuable clues that may lead to early investigation of a particular organ system.

A complete physical examination is mandatory. Attention should be paid to a thorough head-and-neck examination which includes inspection of the scalp, skin, nasal and oral cavities; indirect mirror examination of the nasopharynx and larynx; and palpation of the neck. The consistency, tenderness and mobility of the mass should be noted. Its location may point to the origin, if secondary to infection or metastasis. Bimanual examination of the floor of the mouth, salivary glands, tongue and

tonsils may reveal a mass not obvious to visual inspection. Auscultation of the mass may demonstrate the bruit of a fistula or vascular tumor. Rectal and pelvic examinations are very important. Breast palpation in both sexes may show the presence of a worrisome mass.

Laboratory tests should include urinalysis; complete blood count; thyroid, liver and renal function studies; and calcium, serum phosphate and glucose. X-rays may include chest, lateral soft tissue of the neck, laryngogram, paranasal sinuses and base of the skull, barium swallow with upper gastrointestinal (GI) series, intravenous pyelogram, thyroid, bone and liver scans.

All of the diagnostic studies shown in Table 1 may not be needed to identify the etiology of a neck mass. Many masses will be diagnosed with only a minimal investigation. If cancer is found, however, the studies are necessary to determine the presence or absence of distant metastases or a second primary. Direct endoscopy may be necessary for biopsy and staging of a suspected tumor.

What, then, are some of the major disease processes known to present frequently with a mass in the neck and what are their diagnostic features? Skolnik¹ reported in a study of 2,348 patients that 50% were neoplastic (82% malignant, 18% benign), 30% benign thyroid disease and 12% inflammatory. It is commonly accepted that about 5% of neck masses will have an origin below the clavicle—hence, the indication for diagnostic studies of these areas.

BENIGN MASSES

Inflammatory. Perhaps the most common benign mass to present in children is inflammatory—cervical lymphadenitis (Table 2). The majority of these masses follow an upper respiratory infection causing a pharyngitis or adenitis. Dental infections account for 30% of inflammatory neck masses.

The patient usually presents with a tender, red mass in the lateral neck which is associated with fever and leukocytosis. Skin tests for tuberculosis, histoplasmosis and cat scratch fever should be applied. Heat to the mass often accelerates the inflammatory process to a point at which needle aspiration will yield purulent material for culture. After

Masses in the neck may represent a wide variety of pathological entities which are benign and malignant. An efficient and thorough evaluation will demonstrate the etiology in more than 90% of the patients. The high incidence of metastatic carcinoma to the neck must be kept in mind and a search for the primary lesion carried out. Premature biopsy of the neck mass before a systematic work up is completed must be condemned and may be detrimental to the patient's ultimate treatment and prognosis.

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TABLE 1
DIAGNOSTIC EVALUATION OF A NECK MASS

Comprehensive medical history
Complete physical examination
Indirect nasopharyngoscopy
Indirect laryngoscopy
Complete blood count
Urinalysis
Renal, liver, and thyroid function studies
Calcium and inorganic phosphate
Serum glucose
Radiographs
AP and lateral of the chest
Soft tissue lateral of the neck
Laryngogram
Thyroid scan
Barium swallow
Upper GI series
Paranasal sinuses
Base of the skull
Intravenous pyelogram
Bone scan
Liver scan
Direct endoscopy

the material for culture has been obtained, the appropriate antibiotics can be initiated. If a frank abscess is present, it should be incised and drained with the patient under general anesthesia, keeping in mind the anatomy of the neck and the fact that nerves tend to become intimately involved in an abscess wall. The cavity should be packed open with gauze and the dressing changed regularly until healing has occurred. All material sent to the laboratory should be cultured for aerobic and anaerobic bacteria, fungi and typical and atypical mycobacteria. One should never forget that a tumor mass may necrose and present as an abscess. When possible, a portion of the abscess capsule should be sent for biopsy and culture.

Cervical tubercular adenitis ("scrofula") seems to be on the upswing and should be strongly considered in a patient with fever, malaise and exposure to a known tuberculous patient. Atypical mycobacterium infection is common and may present as a firm, coalesced nodal mass that may demonstrate necrosis and exuberant granulation tissue. Both typical and atypical tuberculosis should be treated with antituberculous drugs. A chest x-ray should be obtained to rule out pulmonary involvement. If no purulent material can be obtained for acid-fast culture, then careful tissue biopsy may be required for bacteriological studies.

Histoplasmosis is endemic in Missouri and the glandular form may occur. Oral mucosal ulcers,

TABLE 2
BENIGN CAUSES OF NECK MASSES

Inflammatory	Thyroid
Bacterial lymphadenitis	Solitary cyst
Tuberculous adenitis	Goiter
Histoplasmosis	Hyperplasia
Brucellosis	Adenoma
Tularemia	Parathyroid hyperplasia
Toxoplasmosis	Parathyroid adenoma
Congenital	Other
Thyroglossal duct cyst	Carotid aneurysm
Branchial cleft cyst	Carotid body tumor
Hemangioma	Arterial-venous fistula
Cystic hygroma	Neurinoma
Dermoid cyst	Schwannoma
	Hematoma

evidence of pulmonary disease and, even, adrenal failure may be present. Both histo-complement fixation and skin tests may be positive. The treatment of choice is intravenous amphotericin B.

Brucellosis and tularemia may cause lymphadenopathy, fever and malaise. Febrile agglutinin titers plus tissue cultures will confirm the diagnosis. Oxytetracycline is the treatment of choice.

Toxoplasmosis is endemic to Missouri and frequently presents as a neck mass. A toxoplasmosis titer should be obtained, especially in young and middle-aged patients.

It is important to know that benign inflammatory nodal disease is one of the least likely causes of asymmetric neck masses in the adult.²

Congenital. While congenital cysts account for many masses seen in children and young persons, they also may present in the older patient. The thyroglossal duct cyst usually presents as a midline swelling in the neck anywhere from the base of the tongue to the suprasternal notch. It will move superiorly as the tongue is protruded due to its attachment to the foramen cecum. It is lined by respiratory epithelium and mucous glands and may become infected. A thyroid scan must be obtained to rule out the possibility that this mass is the only functioning thyroid tissue. Surgical removal of the cyst with enblock resection of the midportion of the hyoid bone and the tract to the base of the tongue yields the lowest recurrence rate.

Branchial cleft cysts and sinuses are formed from residual ectodermal tissue beneath the surface as the branchial clefts become obliterated and present as masses in the lateral neck. The first cleft cyst presents in the pre-tragal area and may involve the facial nerve and parotid gland. The second and third branchial cysts present anterior to the sternocleidomastoid muscle in the neck. These cysts do

not move with tongue protrusion. Surgery is indicated in these masses for increasing size, recurrent infections and drainage.

Hemangioma is the most common benign tumor of infancy.³ It may occur in the parotid, skin or deep tissues of the neck. The treatment is usually watchful waiting as the majority undergo natural regression. For large compressive hemangiomas of the neck, a tracheostomy may be necessary along with treatment with steroids. Radiation therapy should be avoided in children and adolescents for the treatment of a benign neck mass.

A cystic hygroma (cystic lymphangioma) may present as a large, multiloculated mass in the posterior triangle. About 50% are present at birth and 90% are detected before age 2. They may extend into the mediastinum and axilla and cause respiratory embarrassment. Treatment is directed toward relief of airway obstruction. Surgery is usually postponed as the elective surgical mortality is high in infancy.

Dermoid cysts usually are easy to detect. They are found just beneath and attached to the skin, but not attached to the underlying structures, and may progressively enlarge in association with infections. In the midline, they may be difficult to distinguish from thyroglossal cysts. Treatment is simple excision.

Benign vascular tumors may present as neck masses. Usually, they are compressible, may show some enlargement with the Valsalva maneuver and

may have a bruit. Included are carotid aneurysms, carotid body tumors and A-V fistulae (usually traumatic in origin). An arteriogram and ultrasound examination usually will be confirmatory and should be performed before biopsy or excision.

Neurinomas and other nerve sheath tumors may present in the neck along the pathway of any peripheral nerve. They may present as parapharyngeal masses or along the jugular chain and be mistaken for a metastatic node.⁴ There may be a neurological loss if the nerve fibers are compressed by a nerve sheath tumor (Schwannoma). Treatment is surgical excision.

Thyroid. Approximately 30% of masses in the neck are due to benign thyroid disease. While most are midline or paratracheal, they can occur laterally as well. Some dysphagia or dyspnea can occur with larger masses. Goiters are usually multilobular and may require surgery for progressive enlargement or diagnosis. A chest x-ray may show substernal extension of the goiter. Solitary thyroid nodules should always be excised for diagnosis.

Parathyroid hyperplasia may present with a neck mass laterally and is often mistaken for a thyroid nodule. An adenoma may be very firm and also move with swallowing. Hypercalcemia and decreased serum inorganic phosphate will alert the physician to hyperparathyroidism. Surgical exploration is the rule.

MALIGNANT MASSES

In the late 1930s and early 1940s, Dr. Hayes Martin began reporting a new philosophy of viewing the pathological significance of a neck mass—"Asymmetric enlargement of one or more cervical lymph nodes in the adult is almost always cancerous and usually is due to metastasis from a primary lesion."² It is with this group of patients that the majority of the diagnostic efforts will be spent.

If thorough history, physical examination and preliminary studies have failed to diagnose a benign disease, then a malignant process must be considered (Table 3). In the adult, 80% of lateral neck masses will represent cancer and the vast majority of these are metastatic from some primary lesion elsewhere in the head and neck. The diagnostic steps previously outlined must be undertaken as a systematic pursuit of a primary cancer.

In the young adults (age 20 to 40), lymphoma heads the list for malignant disease in the neck. While a single node is rarely lymphomatous in character, this must be kept in mind.⁵ A thorough search for another etiology must be undertaken before any lymph node biopsy is performed. Frozen

TABLE 3

MALIGNANT CAUSES OF NECK MASSES

Primary in the Neck

- Lymphoma
- Lymphosarcoma
- Hodgkin's disease
- Thyroid carcinoma
- Leiomyosarcoma
- Salivary gland carcinoma
- Chondrosarcoma

Metastatic to the Neck

- Carcinoma of the skin, auricle, nose and lips
- Nasopharynx carcinoma
- Carcinoma of the sinuses
- Malignant melanoma
- Salivary gland carcinoma
- Carcinoma of the oral cavity, tongue, and tonsils
- Hypopharynx and piriform sinus carcinoma
- Laryngeal carcinoma
- Thyroid carcinoma
- Carcinoma of the stomach, lung, and colon
- Renal cell carcinoma
- Carcinoma of the breast and cervix
- Testicular malignancies

section diagnosis is very difficult in lymphomas and may be deferred for permanent sections. Treatment after staging is usually radiation therapy and chemotherapy.

Cancer of the thyroid should be suspected in any patient with a firm mass or series of masses in the lower neck who gives a history of hoarseness or dysphagia. Thyroid scan usually shows a cold nodule. The histologic type of tumor and capsular invasion usually direct the appropriate therapy.

A neck mass in an adult in or beyond the fifth decade of life will be metastatic cancerous disease in 90% of cases.⁶ The diagnostic search then becomes paramount to uncover the primary site of the neoplasia. The thorough study previously outlined will demonstrate the primary site 95% of the time.

Carcinomas of the salivary glands usually present with a painful mass, firm and fixed. Involvement of the facial nerve in the parotid gland is a grave prognostic sign. Salivary gland scans will show a cold lesion in the case of carcinomas with the exception of mucoepidermoid carcinoma, which may be "hot" on the scan. A filling defect or mass is seen on the sialogram. The proper way to biopsy the parotid gland is via excision of the gland lateral to the facial nerve. If the tumor involves the facial nerve, then it should be sacrificed and nerve grafting utilized. For a mass in the submandibular gland, total excision for biopsy is indicated. Post-operative radiation therapy may be helpful to increase the prognosis.

Malignant melanoma of the head and neck usually presents with a metastatic node. A careful search of the skin and mucous membranes often discloses the pigmented lesion. However, nonpigmented malignant melanomas do occur, and usually are in the nasal cavities or sinuses so that any raised, edematous area should be biopsied if a high index of suspicion exists. Treatment may include surgery, radiation therapy and chemotherapy. Survival rates are discouragingly low.

Rhabdomyosarcoma is the most common soft tissue neoplasm of the head and neck in children.³ It has a 50% incidence of metastases at the time of diagnosis. It may be seen as a nasal polyp, an orbital tumor or around the jaws and soft tissues of the face. The addition of chemotherapy has increased the survival rates dramatically.

The nasopharynx, tonsils and base of the tongue contribute a great many primary carcinomas. Here inspection and palpation may reveal an indurated, raised or ulcerated lesion associated with pain and, possibly, a foreign body sensation. Weight loss is

common. Nasopharyngoscopy is a must, often with high yields from blind biopsies, i.e., no obvious lesions in that area. An enlarged node in the neck has been shown to be the presenting symptom of 25% of patients with oral cavity or pharynx carcinoma, 47% of patients with carcinoma of the nasopharynx⁴ and 45% of patients with carcinoma of the piriform sinus. Serous otitis media in the adult should make the physician highly suspicious of a nasopharyngeal carcinoma.

Carcinoma of the hypopharynx and piriform sinus usually present with dysphagia, referred pain to the ear, weight loss, muffled voice and halitosis. Indirect laryngoscopy will demonstrate these lesions in the office as they usually are advanced by the time the patient seeks medical advice.

The patient with cancer of the larynx frequently demonstrates a long history of smoking and alcoholic ingestion. Hoarseness is the most common presenting symptom. Cough, aspiration pneumonia or acute airway embarrassment during a respiratory infection may cause the patient to seek medical attention. Staging of the lesion with multiple biopsies under general anesthesia, laryngogram and tomograms of the larynx help to guide the appropriate therapy. The treatment for carcinoma of the upper air and food passages usually is surgery or radiation therapy or a combination of these modalities.

In approximately 10% of patients with metastatic nodes in the neck, distant primaries will be detected. Carcinomas of the lung, stomach, colon, breast, cervix, kidney and testicles can all give rise to metastases in the neck. It is important, then, for the physician to consider the whole patient and not just the disease in the neck.

All tumors of the head and neck must undergo TMN staging which is vital to our therapy and study of the disease and its prognosis. This almost always includes nasopharyngoscopy, laryngoscopy, bronchoscopy with bronchial washings and esophagoscopy.

If, no tumor is found, after an exhaustive search for a primary tumor both above and below the clavicles then the neck lesion is felt to be due to an occult primary neoplasm. It is only at this point that biopsy of the neck mass is indicated. The biopsy should be performed by a surgeon trained in cancer surgery and who is capable of immediate radical surgery if the biopsy is positive. Approximately 5% of the patients will have an occult primary. Of these, 30% will turn up with a primary lesion within two years—usually nasopharynx or base of the tongue.⁷ The three-year survival for

those treated for cure with an unknown primary approaches 40%.⁸

Devine⁹ reported that of 75% of the patients referred to Mayo Clinic because of a possible primary in the head and neck, a lump had already been removed from the neck and a diagnosis of cancer made. If a biopsy is done too early and injudiciously, actual harm may be done to the patient. If a biopsy indicates a metastatic carcinoma and no primary lesion had been sought, valuable time then must be taken to reinvestigate the patient in search for the primary lesion. The untimely biopsy may have compromised the ability to perform an "incontinuity cancer resection." Finally, it is theoretically possible to "seed" a biopsy tract with tumor cells which given time to grow during a subsequent investigation may affect the patient's prognosis.

It is the authors' feeling that most of the investigation of a neck mass can be performed by the primary physician and if benign disease is found, the appropriate therapy initiated. If, however, the evaluation proceeds to requiring endoscopy and possible biopsy with radical surgery, referral to

surgical colleagues should be encouraged.

Cooperation and combined efforts of the primary physician and surgeon will aid in the early detection and treatment of these challenging masses in the neck.

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Reprints: G. Richard Holt, M.D.
Section of Otolaryngology
University of Missouri Medical Center
807 Stadium Rd.
Columbia, Mo. 65201

EFSCCH Semiannual Professional Program—"Pain"

Ellis Fischel State Cancer Hospital and the associated Cancer Research Center will hold their Semiannual Professional Program on June 19 at the Ramada Inn in Columbia. The conference, which is entitled "Pain," is offered without charge to any interested health professional. For additional information, write to Alex Horochowski, M.D., Ellis Fischel State Cancer Hospital, Business 70 at Garth Ave., Columbia 65201.

Second Annual Summer Allergy Seminar

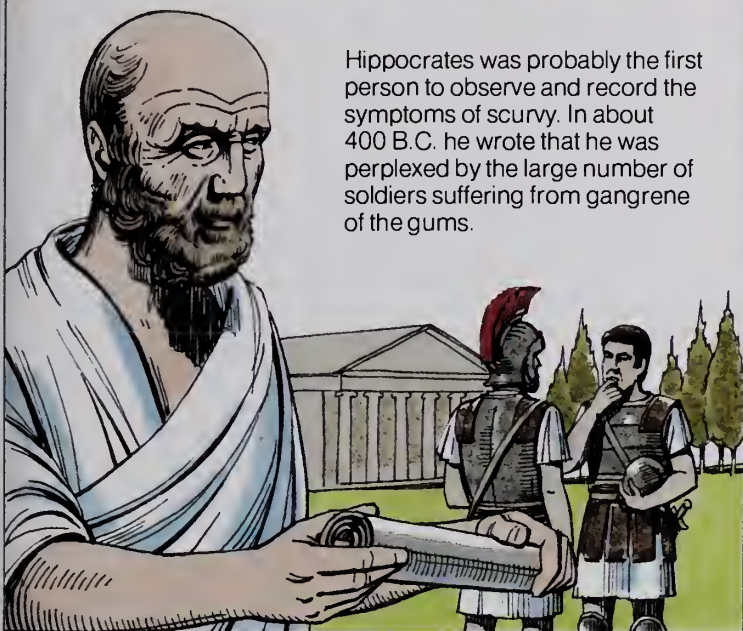
The Missouri State Allergy Association will present its second annual Summer Allergy Seminar on June 17-20 at Tan-Tar-A Golf and Tennis Resort on the Lake of the Ozarks at Osage Beach. The purpose of the meeting is to bring to the allergist and non-allergist physician a review of current trends in therapy and diagnosis of allergic diseases and their application to daily office problems. For more information, contact the MSAA, 1505 Traders National Bank Bldg., 1125 Grand Ave., Kansas City 64106. Advance registration is requested.

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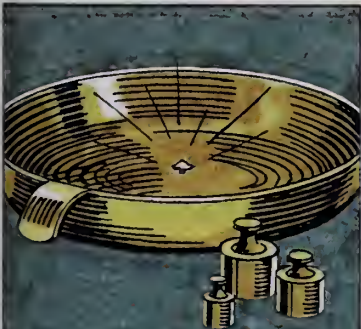
Northern and Central Europeans must obtain their vitamin C primarily from cabbage because these countries don't have a Florida or California as a source of citrus fruits. These inhabitants get about twice as much ascorbic acid when they eat their cabbage raw as when they boil it.



Hippocrates was probably the first person to observe and record the symptoms of scurvy. In about 400 B.C. he wrote that he was perplexed by the large number of soldiers suffering from gangrene of the gums.



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President's Message

As the remaining hours of the Missouri General Assembly began to wane, so did the hopes for passage of legislation to help remedy the medical professional liability insurance situation in the minds of many physicians. But, when the clock reached midnight on the final day of the Session, the medical profession could breathe a sigh of relief as six of eight bills dealing with malpractice were enacted by the Legislature.

I do not suggest that these six bills will solve the malpractice insurance problem in Missouri or that our profession should be satisfied that we have done all we can. Plans are already underway for the MSMA to review what has been accomplished, what was not accomplished and goals which need to be set for the next General Assembly.

I am keenly proud, however, and I believe those members who know the workings of the Legislature agree, that we were able to gain passage of several important bills in a General Assembly characterized by many as "complacent." Throughout the Session, the press stated that the lawmakers were more concerned with getting reelected than with passing legislation. I was not too surprised, then, to see that with less than one week remaining in the Session, none of the bills strongly supported by our Association had reached final passage.

Then the final rush began! And, within four days, the Legislature adopted bills which would strengthen the Board of Healing Arts, set up malpractice case review panels, lower the Statute of Limitations on minors, require insurance firms to report malpractice claims to the State, establish enabling legislature for a Joint Underwriting Association and eliminate the inclusion of dollar amounts in the demand of a malpractice suit.

Colleagues, that represents an impressive assortment of fine, corrective legislature!

Many individuals deserve the gratitude of our profession and our patients for assisting in the passage of these important bills. Our Committee on Legislative Affairs and the MSMA staff again did the outstanding job that we have grown to expect. In addition, many MSMA and Auxiliary members turned out for legislative hearings and contacted their Representatives and Senators on a one-to-one basis. Also, we cannot overlook the hard work and dedication exhibited by our many friends in the General Assembly. Some of the measures we backed sought a complete change in the tort system of Missouri and these legislative friends had to be prepared to defend our position and mount an offensive to gain approval of the bills. It is due to the combined efforts of these interested and concerned individuals that we fared so well this Session.

In the months ahead, we must redouble our efforts to reach additional satisfactory solutions for the perplexing malpractice insurance problem. The special Ad Hoc Committee on Malpractice called for by the MSMA House of Delegates is already in the process of formation and members shall be kept up-to-date on the findings and thoughts of this group. As always, your Association welcomes your thoughts on this matter and I urge you to communicate ideas to MSMA Headquarters or your Officers and Councilors.

Despite the gloomy forecast of many, Missouri physicians can point with pride to a Legislative Session that produced perhaps one of the most comprehensive packages of malpractice insurance bills in the U. S. With the help of all Association members, we can do more in the future.

* * *

I have already thanked many of the individuals who were so vital in efforts for passage of the above bills, but I want to give special recognition to two staff members—Royal Cooper and Cork Swarens—for their day-and-night work that was responsible for much of our success.

My final note this month is equally pleasurable. I know all of you will join with me in wishing Royal and his bride, Deborah, all the best in the coming years.



Max S. Franklin, M.D.

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Woman's Auxiliary

*"If you want to tell it fast, use the
telephone;
If you want it to be remembered, use the
telegraph;
If you want the world to know, tell a
woman."*

—Thomas Edison

"Communication" is not a word which evokes images of dynamic action for the reader. Yet, this quiet noun is the key to one of the Woman's Auxiliary's greatest potentials and a prime focus of our national leaders. Its definition connotes a positive, constructive technique for reaching and influencing others; the tools of effective communication teach us to be attentive listeners and informed conversants. Honest concern is a necessary, basic quality.

Communication is a battle for trust and credibility. The measure of our success is open, responsive, enlightened interchange within the physicians' organizations, within the Auxiliary and within the community.

An auxiliary is described as the right arm of the state and national associations. To be a good right arm requires rapport and communication with our State Medical Association. It is important that we remember our responsibility to keep the Association informed and obtain its approval of Auxiliary projects. In so doing, we maintain a strong working program balanced by the association's knowledge and advice.

Within the community, every physician's wife represents the medical profession. Her status enables her to identify community needs and to serve as the catalyst in the area of these needs. Through her participation and involvement, she has the opportunity to reach deeply into the community with her influence. Her limitless scope and contacts enable her to promote a positive image of medicine. This is *Communication*.

One of the most critical elections in the history of medical legislation is approaching within the next few months. The Woman's Auxiliary has reinforced its program of legislative education through expansion of its existing LEGS program and implementation of new techniques for coordinating legislative effort. Recognizing the potential of the educated woman, the AMA and its Auxiliary are conducting an intensive workshop for state legislative chairmen. This three-day Conference will bring 50 Auxiliaries to Washington for in-depth, on-the-scene training. They, in turn, are charged with the responsibility of relaying this knowledge to the county auxiliaries so that prompt direction can be undertaken at the grass roots level.

"You can't sell it unless you tell it," says Dr. Frank Jirka, AMA Trustee. *Communication* is the key to successful legislation. Unified communication within the medical organizations is vital in this election year. Together, we can double the voice for medicine.

It also has been said, "One hair of a woman can draw more than a hundred pair of oxen." The capability of women can be as effective in today's society as it was 300 years ago when James Howell spoke his wisdom. Your MSMA Auxiliary hopes it can affirm the timeliness of this adage to you in 1976.



Mrs. George P. Wilson
President

County Society News

FIRST DISTRICT

COUNCILOR

JOHN N. MARTIN, M.D., ST. JOSEPH

BUCHANAN COUNTY MEDICAL SOCIETY

Dr. Andrew McCanse of Kansas City, a surgeon and Councilor for the MSMA Seventh District, presented the annual Cancer Program for the Buchanan County Medical Society at the Moila Club on April 7.

Dr. McCanse is immediate past-president of the Missouri Division, American Cancer Society.

He discussed "The Politics of Cancer" and stressed the work and effectiveness of the American Cancer Society which, he noted, is the largest voluntary health organization in the world with 2.3 million volunteers.

The meeting was preceded by a dinner and business session.

Dr. R. Philip Acuff, past-president of the Buchanan County Unit of the Cancer Society, introduced

Dr. McCanse. Dr. G. Tyson Carpenter, President, presided at the meeting.

Two members of the Society were commended at the meeting—Dr. Robert W. Kiebc, City Health Officer, for his direction of a successful citywide mass immunization program and Dr. John N. Martin upon his election as Chairman of the MSMA Council.

CARL K. NESS, M.D., *Secretary*

GRAND RIVER MEDICAL SOCIETY

The Grand River Medical Society and Woman's Auxiliary met for their monthly meeting on March 11 at the Chillicothe Country Club.

Although the official date for Doctors Day is March 30, the Auxiliary presented the program honoring the doctors at this meeting. Mrs. George Mandler and Mrs. Hermanito Trinidad served as co-chairmen.

The Bicentennial theme was carried out with table decorations of flags depicting the different periods in American history. The centerpiece was a floral arrangement of red carnations, which is the symbol of Doctors Day.

Mrs. Trinidad opened the program by presenting each doctor with table grace prayers which were composed especially for the occasion by the Holy Spirit of Adoration Sisters of Mount Grace convent in St. Louis. Dr. Thomas Cofer, President of the Medical Society, gave the opening prayer and Dr. Joseph Conrad read the prayers after the meal.

Mrs. George Mandler gave a brief talk on the history of Doctors Day. This year, as a tribute to Doctors Day, the committee decided to grant a scholarship to an outstanding graduating science student in Chillicothe in memory of Dr. Donald M. Dowell, an outstanding physician who gave many years of service to his community and the state of Missouri.

After the program, the Woman's Auxiliary held its separate meeting with Mrs. Cofer, President, presiding.

The Medical Society's scientific program was presented by Dr. Herb Craig of Columbia, a native of Chillicothe.

REPORTING

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MSMA/Auxiliary Cited in Kansas City STAR Magazine

A health education project of the MSMA Woman's Auxiliary for 1976 was recognized in a feature article in the *Kansas City STAR Magazine* on April 11.

The article described in detail the Heimlich Maneuver emergency treatment for food choking which has been publicized by the Auxiliary because of the life-saving potential of this first aid technique. Since January, members of the Auxiliary have distributed posters illustrating the maneuver for kitchen areas of restaurants, nursing homes, schools, industries, clubs and homes in large and small communities throughout the state.

The project has been endorsed by the Council of the Missouri State Medical Association, the Missouri Restaurant Association and the Missouri Nursing Homes Association.

Mrs. William R. McPhee, Immediate Past-President, reported that the Auxiliary has distributed 2,000 posters since the project was launched.

She also stated that the Woman's Auxiliary is cooperating with KMBC-TV, Channel 9 in Kansas City, in co-sponsoring a special program presenting the Heimlich Maneuver on that station's "Life Saving Programs" series.

The Heimlich Maneuver poster was reproduced on page 88 of the February, 1976 issue of *MISSOURI MEDICINE*.

MSMA members can secure the posters by contacting Mrs. Calvin E. Engelmann, 2000 W. 68th St., Shawnee Mission, Kan. 66208.

Food choking is the sixth leading cause of accidental death. Since the Heimlich Maneuver was first described a year and a half ago, it is reported that 374 lives have been saved.

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In Memoriam

Morris P. Gordon, M.D., 8300 Troost, Kansas City 64131, a graduate of the University of Missouri, 1959; member Jackson County Medical Society; age 41; died March 21, 1976.

James F. McFadden, Sr., M.D., 10341 Manchester Rd., St. Louis 63122, a graduate of St. Louis University, 1913; member St. Louis Medical Society; age 87; died March 26, 1976.

Area Workshops on High Risk Maternity and Child Care

The Missouri Division of Health will present the first of several area workshops on high risk maternity and child care in Springfield on May 20-21.

Dr. D. M. Love has announced that invitations have been issued to 500 physicians, nurses, hospital administrators and health workers in the 22-county area in Southwest Missouri.

Attendants at the workshop will explore different systems for delivering maternity and child care, learn more about the state high risk program and exchange ideas with colleagues from their own and other disciplines. One goal of the area workshops is to assess and plan referral and transport patterns for high risk patients in the area.

All registrants will be provided lunch and dinner without charge. Persons staying overnight will be given a \$25 stipend for travel expense.

The second area workshop is tentatively scheduled to be held in Jefferson City on June 3-4.

Additional information may be obtained by writing to D. M. Love, M.D., Missouri Division of Health, Broadway State Office Bldg., Jefferson City 65101.

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Warnings. *Usage in Pregnancy:* Reproduction studies have been performed in animals and there was no evidence of propensity for harm to the fetus. The relevance to the human is not known.

There is no experience in pregnant women who have received this drug.

The drug has not been extensively studied in children under two years; therefore, in the treatment of children under the age of two years, the relative benefit/risk should be considered.

Precautions. Minor transient elevations of SGOT have occurred in a small percentage of patients. Therefore, this drug should be used with caution in patients with preexisting liver dysfunction.

Adverse Reactions. The most frequently encountered adverse reactions are related to the gastrointestinal system.

Gastrointestinal and hepatic reactions: anorexia, nausea, vomiting, gastralgia, abdominal cramps, diarrhea and tenesmus, transient elevation of SGOT.

CNS reactions: headache, dizziness, drowsiness, and insomnia. Skin reactions: rashes.

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New Members

Fereydoon Adibi, M.D., 666 Lester, Poplar Bluff 63901, has become a member of Butler-Wayne-Ripley-Carter County Medical Society. Dr. Adibi is a native of Iran, received his preliminary education at Marvi School and his M.D. degree at Tehran University in 1967. He specializes in obstetrics and gynecology.

Richard A. Arms, M.D., 4240 Blue Ridge Blvd., Kansas City 64133, has become a member of Jackson County Medical Society. Dr. Arms is a native of Detroit, Mich., received his preliminary education at the University of Kansas and his M.D. degree at the University of Kansas in 1966. He specializes in internal medicine.

Jerome Aronberg, M.D., 1469 Willow Brook, St. Louis 63141, has become a member of St. Louis County Medical Society. Dr. Aronberg is a native of St. Louis, received his preliminary education at Washington University and his M.D. degree at Washington University in 1971. He specializes in dermatology.

D. W. Brigham, M.D., 1325 S. Grand, St. Louis 63104, has become a member of St. Louis Medical Society. Dr. Brigham is a native of St. Louis, received his preliminary education at St. Louis University and his M.D. degree at St. Louis University in 1971. He specializes in ophthalmology.

Salvador Chavez, M.D., 1755 S. Grand, St. Louis 63104, has become a member of St. Louis Medical Society. Dr. Chavez is a native of Mexico, received his preliminary education at Vasco de Quikoga University and his M.D. degree at the University of Mexico in 1968. He specializes in surgery.

Vidalita F. Genove, M.D., 2105 Independence Blvd., Kansas City 64124, has become a member of Jackson County Medical Society. Dr. Genove is a native of the Philippines, received his preliminary education at Silliman University and his M.D. degree at the University of Santo Tomas in 1958. He specializes in pathology.

Peter J. Giacobbe, M.D., 6601 Rockhill Road, Kansas City 64131, has become a member of Jackson County Medical Society. Dr. Giacobbe is a native of New York, received his preliminary education at C. W. Post College and his M.D. degree at Creighton Medical School in 1971. He specializes in emergency medicine.

Robert Herron, D.O., 1325 S. Grand, St. Louis 63104, has become a member of St. Louis Medical Society. Dr. Herron is a native of New York, received his preliminary education at St. John's University and his M.D. degree at Philadelphia College in 1972. He specializes in internal medicine (cardiology).

Owen Kantor, M.D., 1034 S. Brentwood, St. Louis 63117, has become a member of St. Louis County Medical Society. Dr. Kantor is a native of St. Louis, received his preliminary education at the University of Missouri and his M.D. degree at the University of Missouri in 1968. He specializes in internal medicine (rheumatology).

Robert Karis, M.D., 601 S. Brentwood, St. Louis 63105, has become a member of St. Louis Medical Society. Dr. Karis is a native of Maryland, received his preliminary education at Catholic University of America and his M.D. degree at Stanford University in 1969. He specializes in neurology.

Timothy D. Kennedy, M.D., 2929 Baltimore, Kansas City 64108, has become a member of Jackson County Medical Society. Dr. Kennedy is a native of Tulsa, Okla., received his preliminary education at the University of Kansas and his M.D. degree at the University of Kansas in 1968. He specializes in radiology.

Mehmet E. Kiyancilar, M.D., State Hospital, Farmington 63640, has become a member of Mineral Area County Medical Society. Dr. Kiyancilar is a native of Turkey, received his preliminary education at Thakif Secondary School and his M.D. degree at Ainshams University in 1969. He is in general practice (psychiatry).

H. Laks, M.D., 1325 S. Grand, St. Louis 63104, has become a member of St. Louis Medical Society. Dr. Laks is a native of South Africa, received his preliminary education at King David School and his M.D. degree at Witwatersrand Medical School in 1965. He specializes in surgery (cardiovascular).

Ernesto Y. Lee, M.D., Austin Plaza, Potosi 63664, has become a member of Mineral Area County Medical Society. Dr. Lee is a native of the Philippines, received his preliminary education at the University of the Philippines and his M.D. degree at the University of the Philippines in 1958. He specializes in general surgery.

Gary F. Lockwood, M.D., 4320 Wornall Rd., Kansas City 64111, has become a member of Jackson County Medical Society. Dr. Lockwood is a native of Kansas City, received his preliminary education at the University of Kansas and his M.D. degree at the University of Kansas in 1971. He specializes in obstetrics and gynecology.

Ross Mayfield, M.D., 7206 Princeton, St. Louis 63130, has become a member of St. Louis Medical Society. Dr. Mayfield is a native of Tennessee, received his preliminary education at Carson Newman College and his M.D. degree at the University of Tennessee in 1972. He specializes in anesthesiology.

Julio Morales, M.D., 369 N. Taylor, St. Louis 63108, has become a member of St. Louis Medical Society. Dr. Morales is a native of Peru, received his preliminary education at Trujillo and his M.D. degree at the University of Trujillo in 1965. He specializes in child and adolescent psychiatry.

Robert S. Rosen, M.D., 2069 Wealdwood Dr., St. Louis 63122, has become a member of St. Louis Medical Society. Dr. Rosen is a native of Michigan, received his preliminary education at Michigan State University and his M.D. degree at the Uni-

versity of Michigan in 1973. He specializes in ophthalmology.

Joel L. Roskind, M.D., 10334 Briar Hollow, St. Louis 63141, has become a member of St. Louis Medical Society. Dr. Roskind is a native of New York, received his preliminary education at F & M College and his M.D. degree at the University of Louisville in 1970. He specializes in plastic surgery.

Olaseinde Sawyerr, M.D., 1325 S. Grand, St. Louis 63104, has become a member of St. Louis Medical Society. Dr. Sawyerr is a native of Nigeria, received his preliminary education at the University of Notre Dame and his M.D. degree at Georgetown University in 1970. He specializes in general surgery.

Gregory L. Smith, M.D., 4949 Rockhill Rd., Kansas City 64110, has become a member of Jackson County Medical Society. Dr. Smith is a native of Kansas City, received his preliminary education at the University of Missouri and his M.D. degree at the University of Missouri in 1970. He specializes in surgery.

Tirdkiat Sombun, M.D., 2601 N. Whittier, St.

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Louis 63113, has become a member of St. Louis Medical Society. Dr. Sombun is a native of Thailand, received his preliminary education at Chiangmai University and his M.D. degree at Chiangmai University in 1970. He specializes in obstetrics and gynecology.

Gloria E. Viamontes, M.D., 522 N. New Ballas Rd., St. Louis 63141, has become a member of St. Louis Medical Society. Dr. Viamontes is a native of Cuba, received her preliminary education at Instituto Provincial de Las Villas and her M.D. degree at Havana University in 1948. She specializes in child psychiatry.

Garry Vickar, M.D., 1245 Graham Rd., Florissant 63031, has become a member of St. Louis County Medical Society. Dr. Vickar is a native of Melfort, Saskatchewan, received his preliminary education at the University of Manitoba and his M.D. degree at the University of Manitoba in 1971. He specializes in psychiatry.

Angela A. Villanueva, M.D., P.O. Box 2778, Kansas City 64142, has become a member of Jackson County Medical Society. Dr. Villanueva is a native of the Philippines, received her preliminary educa-

tion at the University of the Philippines and her M.D. degree at the University of the Philippines in 1964. She specializes in pathology.

Christo A. Weltscheff, M.D., 120 S. Main, Windsor 65360, has become a member of Henry County Medical Society. Dr. Weltscheff is a native of Bulgaria, received his preliminary education at St. Zagoza Gymnasium and his M.D. degree at the University of Heidelberg in 1946. He is in general practice.

Richard B. Wilber, M.D., 1465 S. Grand, St. Louis 63104, has become a member of St. Louis Medical Society. Dr. Wilber is a native of Massachusetts, received his preliminary education at the University of Wisconsin and his M.D. degree at St. Louis University in 1973. He specializes in pediatrics.

Michael S. Wilkins, M.D., 825 Euclid, Kansas City 64124, has become a member of Jackson County Medical Society. Dr. Wilkins is a native of Des Moines, Ia., received his preliminary education at Rockhurst and his M.D. degree at the University of Missouri in 1967. He specializes in internal medicine.

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Missouri Medicine in Review



FORTY YEARS AGO

The Annual Session of the Missouri State Medical Association, which convened in the Tiger Hotel in Columbia on April 13-15, was an excellent meeting despite the anticipation of the meeting of the American Medical Association scheduled to follow so soon. The attendance was within 50 of that at the 1935 Excelsior Springs Session which broke former records. Dr. E. Lee Miller of Kansas City, President, concluded each session in the time allotted.

The following officers were elected: President-Elect, Dr. Dudley S. Conley, Columbia; Vice-Presidents—Dr. A. H. Marshall, of Charleston, Dr. James E. Stowers of Kansas City and Dr. E. Y. Pare of Leeton; Secretary-Editor, Dr. E. J. Goodwin of St. Louis. Dr. Ross A. Woolsey of St. Louis was installed as President at the Wednesday afternoon session of the House of Delegates.

The American Medical Association's 1936 Annual Session will open in Kansas City on May 11 and continue through May 15. All General Assembly lectures, scientific sections and scientific and technical exhibits will be held in the new Municipal Auditorium. The last AMA Session to convene in Missouri was held in St. Louis in 1922.

TWENTY-FIVE YEARS AGO

Dr. J. A. Dickson and Dr. Willis Hall of St. Louis held an informal reunion on March 5 in celebration of the 70th Anniversary of their graduation from Washington University School of Medicine.

A plaque in memory of the late Wallis Smith, M.D. of Springfield will be placed in Stone Chapel at Drury College, according to Dr. J. F. Findlay, president of the College.

Dr. W. A. Bloom, Fayette, has been appointed to serve on the credentials committee of the Inter-

national College of Surgeons.—Dr. Max Goldman, Kansas City, was honored at a reception on March 25 at the Muehlebach Hotel in honor of his 50th anniversary in the practice of medicine in Kansas City.

March saw the first patients admitted to the new 65-bed Phelps County Memorial Hospital in Rolla, the first hospital built under the Hill-Burton Hospital Construction Law to be opened in Missouri—April saw the opening of the new 50-bed Perry County Memorial Hospital in Perryville.—The Dunklin and Pemiscot counties hospitals are expected to be open by early summer.

All four of these institutions are recipients of one third of their construction costs from federal funds under Public Law 725. The other two thirds of the construction costs come from local county bond issues.

The Bonne Terre Hospital recently has opened a new wing and is now remodeling the older section. When completed, this essentially will be a new 78-bed institution.

TEN YEARS AGO

The May, 1966 issue of MISSOURI MEDICINE reported the following news item in the "Forty Years Ago" column:

"At the Dallas meeting of the AMA, Dr. Jabez N. Jackson of Kansas City was elected President-Elect of the national organization. This is a great honor not only for Doctor Jackson but for every member of the Missouri State Medical Association and, in fact, of the medical profession of the great Southwest . . . Not since 1887 has a physician from this territory occupied the high office of President of the AMA. Previous presidents from Missouri were Dr. Charles A. Pope, 1854; Dr. John T. Hodges, 1881; and Dr. E. H. Gregory, 1887."

Dr. Byron M. Stuart of Boonville, President of the MSMA, will welcome representatives of nearly every state in the Union when some 600 of the medical profession's "Girl Fridays" converge on St. Louis in October for the Tenth Annual Meeting of the American Association of Medical Assistants.

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alertness (e.g., operating machinery, driving). Though physical and psychological dependence have rarely been reported on recommended doses, use caution in administering to addiction-prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions), following discontinuation of the drug and similar to those seen with barbiturates, have been reported. Use of any drug in pregnancy, lactation or in women of child-bearing age requires that its potential benefits be weighed against its possible hazards.

Precautions: In the elderly and debilitated, and in children over six, limit to smallest effective dosage (initially 10 mg or less per day) to preclude ataxia or oversedation, increasing gradually as needed and tolerated. Not recommended in children under six. Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider individual pharmacologic effects, particularly in use of potentiating drugs such as MAO inhibitors and phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions (e.g., excitement, stimulation and acute rage) have been reported in psychiatric patients and hyperactive aggressive children. Employ usual precautions in treatment of anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation have been reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship has not been established clinically.

Adverse Reactions: Drowsiness, ataxia and confusion may occur, especially in the elderly and debilitated. These are reversible in most instances by proper dosage adjustment, but are also occasionally observed at the lower dosage ranges. In a few instances syncope has been reported. Also encountered are isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent and generally controlled with dosage reduction; changes in EEG patterns (low-voltage fast activity) may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice and hepatic dysfunction have been reported occasionally, making periodic blood counts and liver function tests advisable during protracted therapy.

Usual Daily Dosage: Individualize for maximum beneficial effects. *Oral—Adults:* Mild and moderate anxiety and tension, 5 or 10 mg *t.i.d.* or *q.i.d.*; severe states, 20 or 25 mg *t.i.d.* or *q.i.d.* *Geriatric patients:* 5 mg *b.i.d.* to *q.i.d.* (See Precautions.)

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Missouri Medicine

JOURNAL OF THE MISSOURI STATE MEDICAL ASSOCIATION



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119th MSMA Annual Session
April 14-17, 1977 St. Louis

Both often



Predominant
psychoneurotic
anxiety

Associated
depressive
symptoms

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Tension and anxiety states; somatic complaints which are concomitants of emotional factors; psychoneurotic states manifested by tension, anxiety, apprehension, fatigue, depressive symptoms or agitation; symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in skeletal muscle spasm due to reflex spasm to local pathology, spasticity caused by upper motor

neuron disorders, athetosis, stiff-man syndrome, convulsive disorders (not for sole therapy).

Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma; may be used in patients with open angle glaucoma who are receiving appropriate therapy.

Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive dis-

orders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard convulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms (similar to those with barbiturates and alcohol) have occurred following abrupt discontinuation (convulsions, tremor, abdominal and muscle cramps, vomiting and sweating). Keep addiction-prone individuals under careful

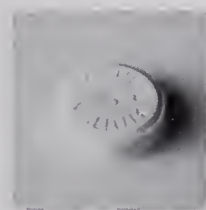
respond to one

According to her major symptoms, she is a psychoneurotic patient with severe anxiety. But according to the description she gives of her feelings, part of the problem may sound like depression. This is because her problem, though primarily one of excessive anxiety, is often accompanied by depressive symptoms. Valium (diazepam) can provide relief for both—as excessive anxiety is relieved, the depressive symptoms associated with it are also relieved.

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in psychoneurotic
anxiety states
with associated
depressive symptoms

surveillance because of their predisposition to habituation and dependence. In pregnancy, lactation or women of childbearing age, weigh potential benefit against possible hazard.

Precautions: If combined with other psychotropics or anticonvulsants, consider the full pharmacology of agents employed; drugs such as phenothiazines, sedatives, barbiturates, MAO inhibitors or other antidepressants may potentiate action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies.

Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle

spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.



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Missouri Medicine

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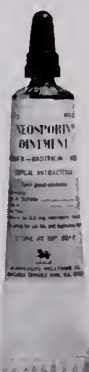
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The Bart F. Wooldridge, M.D. Memorial Library at St. John's Medical Center in Joplin was dedicated on May 4 in a ceremony in the doctor's lounge at the hospital. The medical reference library is dedicated to the late Dr. Wooldridge, Joplin physician and surgeon, who died in an airplane crash in 1974. Dr. Wooldridge served as staff president in 1962 and 1963 and was president-elect in 1974. Dr. John W. Koehler, Sr., a member of the St. John's Board of Directors, delivered the dedicatory address and Dr. R. G. Powell gave the response on behalf of the medical-dental staff. Dr. Koehler presented a copy of the dedication resolution to Mrs. Mary Wooldridge, wife of the late physician.

A surprise retirement picnic-reception to honor Dr. Frederick A. Jacobs was held on May 23 in Ferguson. A pediatrician, Dr. Jacobs has practiced medicine in the area for more than 40 years. The event was attended by 1,200 of his patients and their families.

Dr. Christina V. Hammler has been proclaimed *Physician Emeritus to the city of St. James*. The proclamation, which was signed by Mayor O. B. Jack Rogers, states that "Dr. Christina Hammler has been an outstanding example of professional skill and dedication in the field of medicine in this community for 61 years . . . she is now retired but will never be forgotten."

Dr. William F. Benson, Kansas City, has been elected to the Board of Directors of The Mayo Clinic in Rochester, Minn. for a term of six years.—Dr. Thomas F. Fawley, St. Louis, has been named as a member of the board of regents of the American College of Physicians.—Dr. Thomas T. Flynn, St. Louis, has been appointed as medical consultant to the Missouri Division of Alcoholism and Drug Abuse.

Dr. James T. Brown, Springfield, was the featured speaker at the spring banquet of the Ozark Empire chapter of the American Institute of Banking at Riverside Inn in Springfield. His subject was "Hippocrates Oaf." Dr. Brown is Speaker of the MSMA House of Delegates.

Dr. Arnoldo Kuczer has been named acting director of the department of otolaryngology at The Jewish Hospital in St. Louis. Dr. Kuczer is a clinical instructor at the Washington University School of Medicine and president of the St. Louis Ear, Nose and Throat Society.

Dr. T. N. Cofer of Chillicothe, President of Grand River Medical Society, and Dr. Raymond W. Latham of Kansas City were elected to the board of Kansas City Blue Shield. Dr. Earl C. Sifers was reelected board chairman.

June, 1976

Fall Session of MSMA House set Nov. 3-4

The Interim Session of the MSMA House of Delegates will be held Nov. 3-4 at Tan-Tar-A Lodge at the Lake of the Ozarks following action taken by the Council and Speaker of the House at the May Council meeting.

At the 1976 Annual Session, the MSMA House of Delegates directed the Council to make plans for an Interim Session in the fall to deal with both state and national legislative matters. The Session will be open to all MSMA members and informational material will be mailed to the membership soon.

Resolutions to be introduced at the Interim Session must deal with state or federal legislation and must be in the MSMA Headquarters no later than 20 days prior to the Session — Oct. 13, 1976.

In other action, the Council passed a resolution withdrawing MSMA from any concept of official recognition of the Blue Cross Hospital Plan of Missouri, Inc. (Blue Cross Plan of St. Louis). This resolution is published in the official Minutes elsewhere in this Journal.

The Council also approved a request for a mailing to all MSMA members of a questionnaire to gather the feelings of Missouri physicians toward the Medicaid program. Results of the survey will be available to the Association.

The Ad Hoc Committee on Professional Liability, which had been directed to study various facets of a new malpractice insurance company, Medical Defense Associates, Ltd., of Springfield, presented a report at the meeting. After discussion of the report, the Council adopted the following motion:

"1. That the Council point out to the membership of MSMA that the Association has received descriptive information on Medical Defense Associates, Ltd.

"2. The Association is conducting an on-going study

of the company with adequate legal advice.

"3. The MSMA has not accepted, rejected or endorsed this company in the past or at the present time."

In other actions, the Council:

- Endorsed the establishment of local county health units in those areas of the state where they are not presently functioning.

- **Agreed to cooperate with the Missouri Division of Health in the swine flu immunization project. (See article this issue)**

- Submitted a resolution to the AMA House of Delegates asking that the AMA reinstitute its Department of Field Service.

- Heard an update on the Association's move toward computerizing records.

- Received a report from MSMI, Inc., that after one year of business, 587 physicians are carrying professional liability insurance with the company.

- Approved the development by the MSMA Auxiliary of teams to assist private physicians in the swine flu immunization project.

- Accepted a report from the Committee on Continuing Education which stated that four institutions have been approved for site visits in an effort to gain accreditation by the MSMA. The four are Ellis Fischel State Cancer Hospital, Columbia; Missouri Allergy Association, Inc., Kansas City; St. John's Mercy Medical Center, St. Louis; and Southeast Missouri Foundation for Medical Care, Cape Girardeau. Fifteen additional hospitals have reviewed the criteria for accreditation and are completing pre-visit questionnaires and 18 hospitals are currently reviewing criteria.

- Set the next Council meeting for September 24-25 in Springfield.

Plans being developed for state swine flu program

Plans are currently being developed for a state-wide swine influenza immunization program to be completed before the onset of the 1976 flu season.

The Missouri Division of Health, through its immunization project personnel, will coordinate the program through official health agencies while utilizing the entire health care delivery system. The Council of the Missouri State Medical Association pledged its cooperation in the immunization project at its May meeting.

Division of Health District Coordinators plan to establish or work with existing local committees at the county level to plan the most efficient and rapid delivery system. Coordinators are currently contact-

ing all school and public health nurses and are expected to arrange meetings with local medical societies and hospital staffs in the near future.

Final plans for mass community and private immunization delivery programs must be formulated soon so that programs can be initiated with the arrival of the first vaccines about July 15.

The first program targets are the high-risk individuals, primarily the elderly, who will receive bivalent A/New Jersey influenza and A/Victoria influenza vaccine. Final plans are not yet complete on distribution of the vaccine but it is expected to

Continued on Next Page

David Carr Joins staff of MSMA



David N. Carr has joined the staff of the Missouri State Medical Association as Director of Governmental Relations. He will deal primarily with the ever-growing number of government agencies which have direct and indirect affect on the practice of medicine. He will also work with the medical specialty groups in Missouri.

Dave, who attended high school in Rolla, received his B.A. in economics from the University of Missouri-Columbia in 1974 and this spring received his M.A. in economics from M.U.

While finishing work on his M.A., Dave served as Director of Planning for the Mid-Missouri Comprehensive Health Planning Agency in Columbia. He was formerly a research associate with the CHP.

He is a member of the Missouri Public Health Association, American Public Health Association and Health Economics Research Association. He is married to Mary Melissa Carr, a professional librarian at the Columbia Public Library.

MSMA President asks support for changes in Manpower bill

In two communications with Missouri's U.S. Senators, MSMA President Max S. Franklin has called for support of an amendment to the Health Manpower Bill (S. 3239) to prevent a federal takeover of control of medical residencies.

Dr. Franklin said physicians are deeply concerned with the Committee-approved portion of the bill which would place the type, number and location of medical residencies under federal control.

The provision is aimed at increasing primary care residencies. However, Dr. Franklin said the provision is unnecessary because the percentage of medical graduates entering primary care residencies has risen from 38% to 58% since 1968 under the guidance of the private sector. He continued that it is obvious the private sector is meeting the needs in this vital area without the disruptions which would occur under a government-mandated system.

Dr. Franklin urged Sen. Stuart Symington and Sen. Thomas Eagleton to support the Beall-Taft amendment to the Manpower bill. The amendment calls for further, more detailed study of the distribution pattern among medical specialties.

In addition, Dr. Franklin reiterated the MSMA's objections to portions of the Manpower bill which would set federal standards for licensure and relicensure of physicians, require medical schools to set aside a percentage of enrollment positions for students with mandatory service in shortage areas, eliminate the current role of local and state medical societies in certifying the need for assignment of National Health Corps personnel and mandate hospital privileges for Health Service Corps personnel, thus bypassing traditional medical staff review.

Swine flu

Continued

follow the currently operating system used by public health and could be supplemented by shipments of vaccines to hospitals for distribution to physicians.

Supplemental mass community or selective population immunization programs will be conducted in any areas of the state where the existing delivery system to the at-risk group cannot handle the increased demand for this vaccine.

Beginning about August 15, community-wide and school-based mass immunization programs will be scheduled and conducted to insure maximum delivery of monovalent A/New Jersey influenza vaccine to the general public. These clinics will be simultaneous with the private sector and other health care providers.

With over 600,000 high-risk individuals and more than 4 million other Missourians eligible for the vaccine, the magnitude of the program is great. Therefore, questions still remain in many areas and the MSMA intends to work closely with the Division of Health and other health agencies to keep physicians informed as the program proceeds.

Already, with the questions of physician liability and other legal issues surfacing, MSMA's legal counsel has met with attorneys for the state and other associations to work on the problems. Further meetings are scheduled and members will be kept informed.

The MSMA Auxiliary has begun a project to train its members on how to assist private physicians in any required record-keeping which may arise from the swine flu program. More details will be available at a later date.

AMA files suit!

Carrying out its previously announced intentions, the American Medical Association is joining in legal efforts to challenge the validity of the National Health Planning and Resources Development Act.

The AMA and the North Carolina Medical Society have filed a petition in the U.S. District Court in Raleigh, N.C., to become co-plaintiffs with the State of North Carolina in its suit testing the constitutionality of the new law.

In their joint complaint filed on May 13, the AMA and the NCMS contended that the law, enacted in 1974 and currently being implemented, violates at least five amendments to the Constitution.

A similar, but independent court test of the law also has been brought by the National Association of Regional Councils, a Washington-based organization comprised of local government councils. In its suit, the NARC challenged the planning law as "an intolerable intrusion of state sovereignty" that would usurp powers specifically reserved to states by Article 1 of the Constitution.

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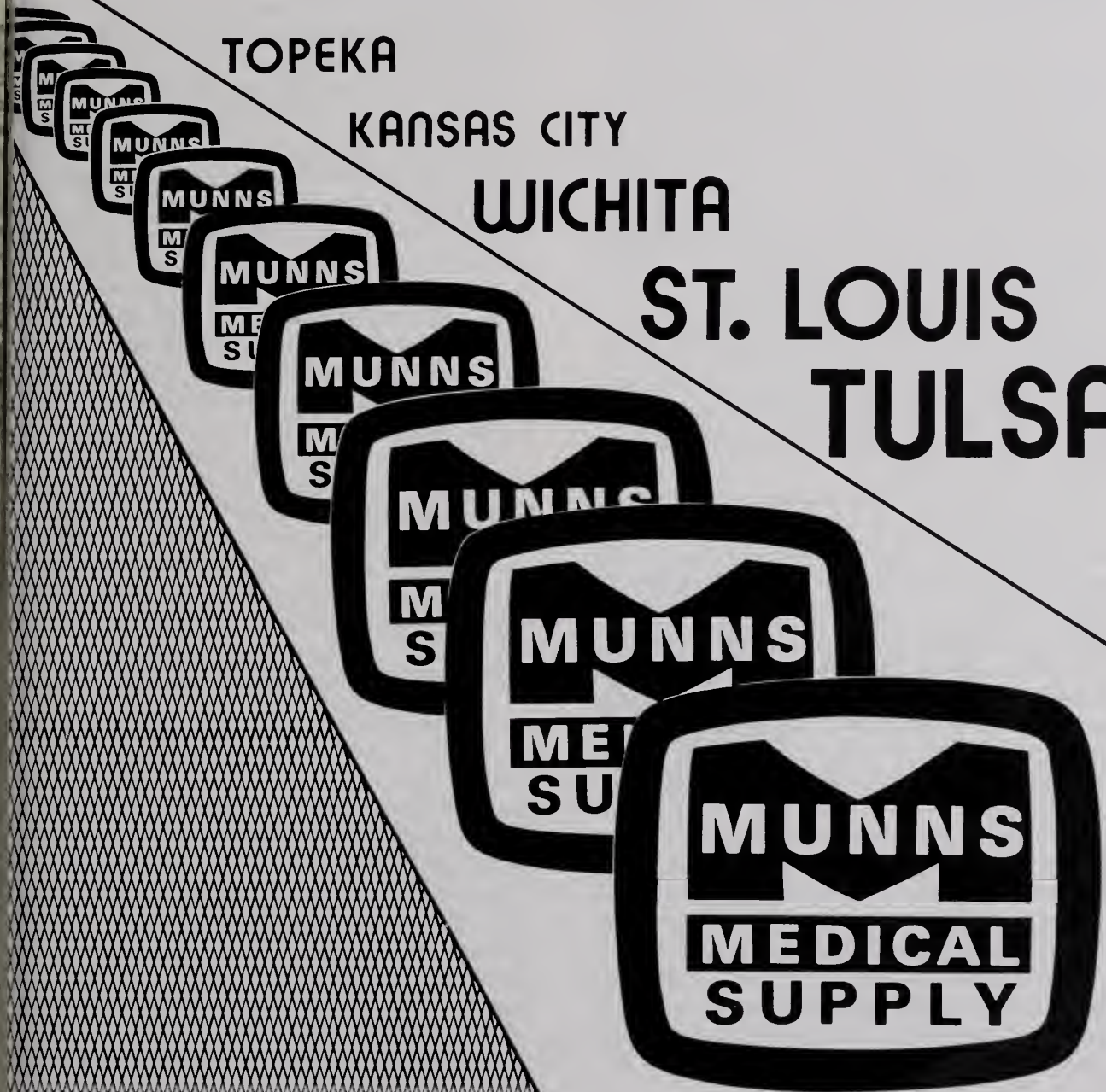
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From the Medical Schools



UNIVERSITY OF MISSOURI-COLUMBIA

Dr. William D. Mayer, former dean of the School of Medicine, has been appointed Assistant Chief Medical Director for Academic Affairs of the Veterans Administration. *Dr. John D. Chase*, Chief Medical Director of the VA, said Dr. Mayer will assume his duties on August 29.

Dr. Mayer was dean of the UMC School of Medicine from 1967 until his resignation on September 1, 1974. Since then he has been Director of the University's Health Services Research and Development Center.

In his VA position, Dr. Mayer will be responsible for the academic relationships through which education and training is provided within the Veterans Administration's hospitals and clinics, in affiliation with medical and allied health schools.

Dr. Mayer will also coordinate the VA grants program for medical schools and other programs of allied health professions training and will direct continuing education activities for VA professionals. The VA Learning Resources Service will be under his supervision as well.

Through its affiliation with 100 medical schools and hundreds of other educational institutions, VA hospitals and clinics yearly furnish training to 82,000 health care workers in 40 fields, including 15,300 medical students, 550 dentists and 28,000 professional nurses.

Dr. Mayer joined the University of Missouri-Columbia faculty in 1961 as assistant professor of pathology and assistant dean of the School of Medicine. A year later, he was selected as a Markle Scholar in Academic Medicine. In 1964, he became associate dean. In 1966-1967 while on leave from the University, Dr. Mayer was Associate Director of the Division of Regional Medical Programs of the National Institutes of Health and Chief of its Continuing Education Branch. He returned to the University of Missouri as dean in July, 1967.

Expansion of the family medicine program of the UMC School of Medicine has been assured through financial support by the W. K. Kellogg Foundation of Battle Creek, Mich.

A \$615,310 grant was approved to expand team (physician-nurse) health care delivery in Central Missouri, to enhance a family-oriented system of preventive medicine and illness care and to expand a model of rural health care delivery through satellite programs.

Dr. Jack M. Colwill, head of the family practice residency program and associate dean of the medical school, is project director. The grant covers a four-year period beginning April 1976.

The *Howard A. Rusk Rehabilitation Center* at the Medical Center has received full accreditation from the Commission of Accreditation of Rehabilitation Facilities. The three-year accreditation was awarded less than two years after the Center was dedicated.

"Many times, the Commission gives only conditional accreditation on first-time applications, so we are proud to receive full accreditation," said *Dr. Charles R. Peterson*, chairman of the Department of Physical Medicine and Rehabilitation at Rusk Center.

Facilities at the Center can accommodate 52 inpatients and provide treatment for 600 outpatients each month. Patients who are disabled by stroke, spinal injury, brain damage, amputation, neuromuscular disease, birth defects or an inflammatory disease such as arthritis, are given comprehensive evaluation, care and treatment.

UNIVERSITY OF MISSOURI-KANSAS CITY

Three new Docents have been appointed to the faculty. *Dr. Barbara Bates* will join the faculty as a Senior Docent and Professor in September. Dr. Bates graduated from Cornell University Medical College in 1953 and was a house officer at the New York Hospital from 1953 to 1958. She practiced in Greenwich, Conn., served on the faculty of the University of Kentucky Medical Center and will come to Kansas City from the University of Rochester where she served as a Professor of Medicine. Dr. Bates is the author of "A Guide to Physical Examination."

Dr. Robert McFarland will join the faculty as a

Docent and Associate Professor of Medicine. Dr. McFarland is a graduate of the University of Iowa Medical School (1954). His residency in medicine was in the University of Colorado Medical Center in 1959-1961. He had two years of residency in Pathology at the Massachusetts General Hospital and has had faculty appointments at the University of Colorado Medical Center and University of Colorado Adult Nurse Practitioner Program. He will leave his practice in Boulder, Colo. and arrive in Kansas City on about July 1.

Dr. Daniel Whitman will join the faculty as a Docent and Assistant Professor in early July. Dr. Whitman graduated from the Albert Einstein College of Medicine in 1973 and is completing his residency in Internal Medicine at the Cedars-Sinai Medical Center in Los Angeles.

The Department of Health of Missouri has just announced the award of a contract of \$33,000 to *Dr. Harry S. Jonas*, Professor and Chairman of Obstetrics and Gynecology. This grant is to promote utilization of a standardized obstetric/pediatric record form for use in a high risk maternal and infant care program being instituted by the State of Missouri under House Bill 1686.

Dr. Richardson K. Noback, Dean, will become the Chairman of the Biomedical Library Review Committee of the National Library of Medicine on July 1. A member of this Review Committee for two years, he now will serve as Chairman for two years.

The new Truman Medical Center building is nearing completion. This \$35,000,000 replacement for the existing Kansas City General Hospital is scheduled for occupancy in early December. On May 2, the combined Medical-Dental medical staff met for the first time in the new building on the occasion of the annual meeting. The new hospital contains 308 beds, 180 examining rooms, the most modern facilities and ample teaching space.

ST. LOUIS UNIVERSITY

Two researchers at the School of Medicine have succeeded in transplanting human breast cancer cells in newborn rats. This has raised hopes that an inexpensive model technique for the study of the effect of chemotherapy agents in breast cancer may now be at hand. The relative inaccessibility of a permanent model has been a major obstacle on the road to approach a cure.

Dr. Ivy Benjamin and *Dr. Henry Pinkerton*, Department of Pathology, reported their significant

1976 Honor Graduates Receive MSMA Awards

Three graduating medical students received the Missouri State Medical Association's Merit Awards this spring.

The MSMA Awards, which consist of a certificate and savings bond, are presented annually to the graduating student with the highest scholastic ranking in Missouri's medical schools.

Recipients of the 1976 awards are Daniel Isser Goldman, Norfolk, Va., Washington University; Richard Joseph Herold, M.D., St. Louis, St. Louis University; and Fred Doloresco, M.D., Kansas City, University of Missouri-Columbia.

findings at the April meetings of the Federation of American Societies for Experimental Biology in Anaheim, Calif.

David R. Challoner, M.D., dean of the School of Medicine and president of the American Federation for Clinical Research, addressed the group's convention in Atlantic City on May 2.

Frances L. Horvath, M.D., was elected president-elect of the Association of Physician's Assistant Programs at its annual meeting in Atlanta, Ga. on April 13. She will assume the presidency in April of 1977.

Dr. Horvath is director of the St. Louis Inter-Institutional Physician's Assistant Program at St. Louis University and assistant professor of Physician's Assistants in the University's School of Nursing and Allied Health Professions. She is a clinical instructor in Pediatrics and, also, serves as an advisor to the St. Louis Physician's Assistant Student Society.



Dr. Horvath

One faculty member, one alumnus, 15 senior students and five junior students of the School of Medicine were initiated into the University's chapter of Alpha Omega Alpha, a national honor medical society in April.

Keynote speaker at the ceremony was *Stephen Ayres*, M.D., professor and chairman of the Department of Internal Medicine. Conferral of keys

was made by *Vallee L. Willman*, M.D., professor and chairman of the Department of Surgery.

The faculty member initiated into the Society was *Charles K. Hofling*, M.D., professor and director of the Psychiatric Residency Training Program. A 1957 alumnus, *Walter Stafford*, M.D., also clinical professor of Ophthalmology, was also inducted into the Society.

Ursula T. Rolfe, M.D., associate-professor of pediatrics and of community medicine, received the Robert H. Felix Distinguished Service Award at a ceremony and reception honoring 229 field faculty panel members, preceptors and community agencies on May 27.

Presentation of the Third Robert H. Felix Distinguished Service Award was made by *Dr. Rodney M. Coe*, professor and acting chairman of the Department of Community Medicine, who presided at the ceremony. Dr. Rolfe was chosen as this year's recipient for her outstanding contributions to community medicine.

WASHINGTON UNIVERSITY

Washington University Awarded the Doctor of Medicine degree to 138 graduates at the graduation ceremony on May 21 at the Chase-Park Plaza Hotel

in St. Louis. Thirty members of the class of '76 received academic honors. Two faculty members were recognized as "Teachers of the Year" by the graduating seniors.

Forty-three members of the graduating class will serve residencies in St. Louis. Others will go to 28 states and the District of Columbia. One will serve in Paris, France.

Roy R. Peterson, M.D., professor of anatomy, and *Morton E. Smith*, M.D., professor of ophthalmology, were elected Alumni Teaching Scholars. Their respective departments will receive \$10,000.

The awards were made following an address by *William A. Peck*, M.D., the John E. and Adaline Simon Professor of Medicine at Washington University School of Medicine and Physician-in-Chief at The Jewish Hospital of St. Louis. He spoke on "The Myth of Medical Student Malnutrition."

W. Maxwell Cowan, M.D., Ph.D., professor and head of the Department of Anatomy and Neurobiology and director of the Division of Biology and Biomedical Sciences, was elected a Fellow of the American Academy of Arts and Sciences at the Academy's 196th Annual Meeting.

The Academy is an honorary society of scholars in the humanities and sciences who conduct studies of current public, social and intellectual issues.

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Continuing Education Coming Events

The continuing medical education accreditation program of the MSMA has full approval by AMA's Council on Medical Education. The institutions and functions listed here qualify for Category I credit for the AMA Physician's Recognition Award. All accredited institutions in Missouri are invited to send this information for listing in MISSOURI MEDICINE. Please remember to include name of individual who can be contacted at your institution for additional information about your CME events.

Ellis Fischel State Cancer Hospital and Cancer Research Center

Business 70 at Garth Ave., Columbia 65201

Contact: Alex Horochowski, M.D.

June 19 Semiannual Professional Program—"Pain"

Menorah Medical Center

4949 Rockhill Rd., Kansas City 64110

(816) 276-8095

Contact: Carol G. Hamilton, Coordinator

Nov. 10-12 Clinical Advances in Pediatrics

St. Louis University Medical Center

Continuing Education

1402 S. Grand Blvd., St. Louis 63104

(314) 664-9800

Contact: John A. Grellner, Director

June 16-17 Human Sexuality: Consideration for Health Care, Teaching and Counseling
(Presented with St. Louis Unit, Missouri League for Nursing)

University of Missouri-Columbia School of Medicine

Continuing Education/Extension

M-175 Medical Center, Columbia 65201

(314) 882-2256

Contact: Gail Bank, Exec. Director

Sept. 21-22 18th Annual Midwest Interprofessional Seminar—"Diseases Common to Animals and Man"

University of Missouri-Kansas City School of Medicine— Kansas City Southwest Clinical Society

Continuing Medical Education

2220 Holmes St., Kansas City 64108

(816) 471-3876

Contact: Alta Bingham

June 10-12 Symposium on Clinical Care

Sept. 13-17 Cardiology for the Consultant
(Sponsored by American College of Cardiology)

Sept. 24-25 Long Weekend—Dermatology/Gynecology

Oct. 21-23 Annual Fall Clinical Conference, K.C. Southwest Clinical Society

Nov. 19-20 Long Weekend—Neurology/Pharmacology

Dec. 8-11 The Heart-1976—Current Topics in Cardiology

Washington University School of Medicine

660 S. Euclid Ave., St. Louis 63110

(314) 454-2515

Nov. 12-14 Anesthesia and the Geriatric Patient

The Edward Mallinckrodt Institute of Radiology

510 S. Kingshighway, St. Louis 63110

(314) 454-2291

Contact: Ronald G. Evens, M.D.

Sept. 13 Fifth Wendell G. Scott Lecture

Postgraduate Courses at AMA Convention

In addition to special lectures, scientific exhibits and activities designed to further the continuing education of physicians, more than **50 postgraduates courses** are planned for the AMA's 125th Annual Convention on June 27-30 in Dallas, Tex.

Some of the courses, covering the complete range of medical practice, include diagnosis and treatment of various types of cancer, occupational medicine, dermatology, orthopedics and a biofeedback training course. Medical motion pictures, telecourses and the 18th National Conference on Medical Aspects of Sports (June 26) are included on the scientific program.

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Missouri Medicine

JOURNAL OF THE MISSOURI STATE MEDICAL ASSOCIATION

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F. J. deCASTRO, M.D., M.P.H., S. CHRISTIANSON
and P. LOLLAR, St. Louis

Blood Pressures in Children

HYPERTENSION has been increasingly implicated as a significant factor in ischemic cardiovascular disease. Several studies have been done in children of all ages in an attempt to determine its prevalence and etiology.¹⁻⁴ In the present study, blood pressure was measured in 381 children of ages 9.5 to 12.49, and the possible relationship between blood pressure and race or weight or both of the individual was investigated. A significant difference, which is comparable to the well-known difference in adults,⁵⁻⁸ was noted in black vs white and obese vs non-obese children.

METHOD

Blood pressure determinations were obtained in school-age children in grades four through eight (ages 9.5 to 12.49) and were correlated with age, race, height and weight. Any child weighing above the 90th percentile with height below the 90th percentile for his age was defined as obese.⁹

All blood pressures were determined in the classroom by the auscultatory method with a mercury sphygmomanometer in the right upper extremity while the child was sitting.

Mean, standard deviation and coefficient of skewness were calculated for both systolic and diastolic blood pressures of children in each of four subgroups—black, white, obese and non-obese.

Differences between the various subgroups were tested statistically for significance by utilizing the t-test, if the sample was normally distributed and of adequate size, and the Chi-square test, if the sample was inappropriate for the t-test.

RESULTS

The total number in each subgroup as well as the mean ($\bar{x}$), the standard deviation (SD) and the coefficient of skewness (SS) were calculated for systolic and diastolic pressures in the entire sample and in each subgroup (Table 1).

The Chi-square test in black vs white and obese vs non-obese children showed that black and obese children had significantly higher systolic blood pressures than white children and non-obese children (Table 2).

Significance of difference in diastolic pressures among the different subgroups was tested by the Chi-square test when testing obese vs non-obese children and by t-test when testing black vs white children (Table 2). Again, both black and obese children had significantly higher diastolic pressures than white and non-obese children.

Epidemiologic studies of hypertension in children are few. In this study, blood pressure determinations were obtained in 381 school-age children and the possible relationship between blood pressure, race and weight of the individuals were investigated. A significant difference was noted in black vs white children and obese vs non-obese children. The authors are from the Departments of Pediatrics and Community Medicine, St. Louis University School of Medicine.

TABLE 1
BLOOD PRESSURES FOR EACH SUBGROUP

	<i>Systolic</i>				<i>Diastolic</i>		
	<i>N</i>	<i>x</i>	<i>s.d.</i>	<i>s.s.</i>	<i>x</i>	<i>s.d.</i>	<i>s.s.</i>
Whites	159	105	10	3.37	70	8	.33
Blacks	222	107	14	10.1	72	8	.995
Non-obese	345	106	12	13.4	71	8	1.04
Obese	36	112	13	—	74	8	—
Total	381	106	12	12.5	71	8	.556

DISCUSSION

In determining the significance of the difference between the systolic pressure in the different subgroups, the Chi-square test had to be utilized because systolic pressure results were skewed to the right making invalid the statistical tests based on normal distribution.¹⁰ The Chi-square test showed black and obese patients to have higher blood pressures.¹⁰ The endpoints used approximated but did not exceed 2 standard deviation above the mean, a value utilized by numerous authors as the endpoint to defined hypertension in children.^{2, 3, 10}

Since diastolic pressures were normally distributed, t-testing could be and was utilized in comparing black and white patients but the Chi-square was used again in comparing obese vs non-obese patients because of the small number of obese patients. Significance testing of diastolic pressure difference showed black and obese patients to have higher blood pressures than white and obese patients at several endpoint pressures which, as with systolic pressures, approximated but did not exceed 2 standard deviation above the mean.^{2, 3, 10}

In adults, the prevalence of hypertension is unquestionably related to race and weight with the blacks and obese patients having higher blood pressures.⁵⁻⁸ Epidemiologic studies of hypertension in

TABLE 2

For a Pressure	Black vs Whites	Obese vs Non-Obese
Systolic Blood Pressure Differences		
≥118	p ≤ 0.01	p ≤ 0.005
≥120	p ≤ 0.005	p ≤ 0.005
≥122	p ≤ 0.025	p ≤ 0.025
≥130	p ≤ 0.10	—
Diastolic Blood Pressure Differences		
72	—	p ≤ 0.005
76	p ≤ 0.05	p ≤ 0.025
80	p ≤ 0.06	p ≤ 0.075

children are scant¹⁻⁴ and have not addressed themselves to the question of blood pressure differential as related to race and weight. In the present study, although no truly hypertensive child was found, blood pressure differentials between black vs white and obese vs non-obese were observed with blacks and obese children having higher blood pressures.

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St. Louis, Mo. 63104

Forty-eight state medical associations have been approved by the Council on Medical Education of the AMA for accreditation of organizations or institutions offering continuing medical education. At this time last year, 40 state medical associations had been approved by the Council. At present, 807 institutions and organizations have been accredited in the United States.—*AMA Newsletter*

Sick Sinus Syndrome: Diagnosis and Treatment

THE SICK SINUS SYNDROME (SSS) results from the dysfunction of the sinoatrial node (SAN). Although Levine first reported correlation between sinoatrial block and paroxysmal atrial fibrillation in 1916,¹ it was as recent as 1968 that a unified concept of the abnormal function of this pacemaker and the resulting multifaceted clinical expressions have been described.² As more evidence accumulates, it becomes clear that SAN dysfunction is not rare, but it is difficult to diagnose.

The clinical manifestations of SSS center around the *periodic* hypoperfusion of vital organs—the brain, the heart and the kidneys. Thus, diminished cerebral arterial flow may cause slight personality changes, such as irritability and fleeting lapses of memory and nocturnal wakefulness as well as more obvious changes such as slurred speech, pareses, dizziness and syncope. The patients may complain of generalized fatigue, muscle aches, indigestion or modest and periodic oliguria. In the presence of underlying coronary atherosclerotic heart disease, SSS sets the stage for mild ventricular failure. Periodic and unexplained episodes of acute pulmonary edema may be due to SSS in some cases. If accompanied by sinus bradycardia, any of the above manifestations deserve further investigation of possible SSS.³ Usually, the onset of symptoms is insidious, and the symptoms may be initially intermittent, with some exceptions, viz., in the setting of myocardial infarction or sudden coronary arterial insufficiency when the symptoms have an acute onset.⁴

It is usual to find the chronic SSS in older subjects. However, SSS has been reported in the young (ages 11 and 13 years)⁵ as well as those in every decade up to the 90s and it involves both sexes. James reported SSS in a young athlete who died suddenly at the age of 18 years. Vague symptoms had been present since the age of 13 years, but their significance had not been appreciated.⁶ Children who manifest SAN dysfunction and prolonged Q-T interval (increased duration of ventricular vulnerable period) with or without congenital deafness appear to have ventricular rather than atrial arrhythmias causing syncope or sudden death.⁷

PATHOLOGY

The most frequent cause of the SAN dysfunction

is occlusive atherosclerotic lesions of the coronary arteries proximal to the artery to the SAN. The SAN artery arises from the proximal 2 cm to 3 cm of the right coronary artery in 55% of humans. In the other 45%, it arises from the first few millimeters of the left circumflex branch of the left coronary artery. Other origins have been reported but are rare.⁸ SAN dysfunction can be expected in more than half the patients with inferior infarcts.⁴ Being only 1 mm in internal diameter, the SAN artery usually is not directly affected by atherosclerosis. It may be the site of emboli, arteritic and medial necrotic lesions.⁹ Inflammatory arteritis can occur with polyarteritis nodosa,¹⁰ systemic lupus erythematosus¹¹ and rheumatoid arthritis.¹² Noninflammatory arteritis has been noted with thrombotic thrombocytopenic purpura.¹³ Hereditary medial necrosis of small coronary arteries is especially seen in heritable neuromuscular and musculoskeletal diseases, viz, Friedreich's ataxia,¹⁴ progressive muscular dystrophy,¹⁵ idiopathic cardiomyopathies and the prolonged Q-T syndrome.¹⁶ Infiltrative diseases like amyloidosis,¹⁷ tumors and myocarditis may affect the SAN. Hemochromatosis curiously spares the SAN while involving the AV node.¹⁸ Pericarditis almost regularly involves the SAN and is associated with high incidence of atrial arrhythmias.¹⁹

DIAGNOSIS

Since it is not yet possible to record the action potentials of the pacemaker cells in the living human heart, the diagnosis of a failing sinus node has to be based on indirect appraisals. Initially, the SAN dysfunction may be intermittent and, thus, escape recognition. Suspicion should arise when one encounters sinus bradycardia since this often is the initial manifestation. A history of symptoms attributable to episodic hypoperfusion of vital organs also should be suspect. Provocative tests of SAN function or prolonged monitoring of the patient's cardiac rhythm or both are useful aids in evaluating the various physiological manifestations.

Ferrer has listed the following electrocardiographic findings as indirect diagnostic criteria for SSS:²⁰

1. Sinus bradycardia—persistent, severe and unexpected; includes inappropriately slow sinus rate or relatively slow sinus rhythm.

The sick sinus syndrome results from disorders of the sinoatrial node function and has a varied etiology. The clinical manifestations primarily result from hypoperfusion of the vital organs. The onset may be at any age and usually is insidious. The course of the sick sinus syndrome usually is chronic and extends over many years. If symptomatic, the treatment of choice is the insertion of a permanent demand ventricular pacemaker. Dr. Jain is from the Department of Internal Medicine, St. Louis University School of Medicine.

2. Sinus arrest—lasting for short or long periods with or without the emergence of escape rhythms.

3. Sinoatrial exit block not related to drug therapy, viz, digitalis, quinidine, propranolol, reserpine and procainamide.

4. Chronic atrial fibrillation—often associated with a slow ventricular rate in the absence of digitalis (due to accompanying AV nodal disease).

5. No sinus rhythm after cardioversion of chronic atrial fibrillation.

Each of the above manifestations may occur concomitantly or sequentially in any one patient. SAN dysfunction also may result in bradycardia-tachycardia syndrome. In the bradycardia episodes, no escape rhythm comes to the rescue. Thus, there seems to be dysfunction of the subsidiary pacemakers (atrial or junctional) which, if normal, would take over as escape rhythms. Other abnormalities may be associated, viz, A-V block and intraventricular conduction defects. This probably is a reflection of the extent of the basic pathologic process.²¹

ASSESSMENT OF SAN FUNCTION

Symptomatic SAN dysfunction should be evaluated. Available methods include electrocardiograms, continuous monitoring of an electrocardiogram (ECG), exercise, isoproterenol infusions, atropine administration and overdrive suppression by atrial pacing.

ELECTROCARDIOGRAM

An ECG is essential to assess the nature of bradycardia and associated conduction defects and arrhythmias, if present. Sinus bradycardia (SB) is diagnosed if the sinus rate is persistently below 60 beats/min. The criteria for the ECG diagnosis of varying degrees of SA block have been established.²² First degree of SA block is unrecognizable,

except in situations in which an interpolated atrial premature beat (either spontaneous or induced by atrial stimulation) by atrial-sinus conduction delays the subsequent SA conduction.²³ Second degree SA block is readily recognizable as either intermittent 2:1 or 3:1 block or as variable block with a Wenkebach pattern. Severe chronic SB might represent stable second degree SA block, as in some cases it was noted to be preceded by varying second degree SA block.²⁴

The SA block must be differentiated from blocked atrial premature contractions, sinus arrhythmias and sinus bigeminy. Configuration of the QRS and ST-T of the beat preceding a presumed blocked atrial beat must be carefully examined for evidence of a P wave. Direct intra-atrial electrograms also can be helpful in detecting this P wave.

Third degree SA block probably is represented by what investigators have previously called sinus arrest.

Drugs such as digitalis, quinidine, propranolol, reserpine, and procainamide can elicit SB, sinus arrest or SA exit block as can excess potassium. Consequently, they must be excluded before diagnosing intrinsic SAN dysfunction.

In addition to SB, other arrhythmias have been associated with SA block—in particular, sinus bigeminy, reciprocal rhythms, atrial flutter or fibrillation, paroxysmal atrial tachycardia and AV block. The possible suppression of these arrhythmias by overdrive pacing suggests that they may be related to slow rate.

CONTINUOUS MONITORING OF ECG

It is now possible to monitor the ECG of ambulatory patients for 12 to 24 hours. The SB or SA block may be seen only at night. This test is especially useful for uncovering the bradycardia-tachycardia syndrome. If posttachycardia sinus rates are slow even for a short time, they indicate delayed SAN recovery time and are very suggestive of SSS. The rate may swing by as much as from 22 to 180 per minute and may result in congestive heart failure, fatigue, syncope or repetitive pulmonary edema. Any patient suspected of having SSS should have his cardiac rhythm monitored by ECG for at least ten hours.

EXERCISE

For evaluation of SB, patients could be subjected to the stress of limited exercise using either a bicycle ergometer in the supine position or via treadmill at 10% grade using standard techniques. A failure of cardiac rate to rise to above 90-100/min.

would be suggestive of SSS. However, the value of this test is limited by inability of some patients to exercise and a high incidence of false negative²⁵ as well as false positive results.²⁶

ISOPROTERENOL

A useful protocol involves the intravenous administration of 1 mg to 2 mg of the drug in 500 ml of 5% dextrose in water at 15 drops per minute. The infusion rate is gradually increased until the desired effect is achieved or ectopic beats appear. Failure of SAN to accelerate the rate above 90-100/min is suggestive of SSS.²⁰ However, occasionally the test may produce atrial or junctional tachycardias and vitiate the results. Also, false negative results have been reported.²⁵

ATROPINE

For evaluation of SB, between 1 mg and 2 mg of atropine is given intravenously (not orally). If the rate does not accelerate to 90/min and, especially, if subsequent to this dose SAN recovery time remains prolonged after overdrive from atrial pacing, a diagnosis of a failing SAN is made.²⁷ Drawbacks of this test are due to the side effects of atropine and occasional arrhythmias. Occasionally, false negative results have been obtained.

OVERDRIVE SUPPRESSION

The intrinsic rhythmicity of all automatic tissue in the heart, including the SAN, is altered when it is depolarized from an extranodal source (overdrive). This overdrive can be either a spontaneous bout of rapid atrial arrhythmia or provided by artificial atrial pacing as described by Mandel *et al.*²⁸ The resulting pause, which is either terminated by a sinus beat or by an escape atrial or junctional beat, is carefully measured and gives the sinus node recovery time (SRT). Slower resting or control sinus rates are associated with longer maximum pauses after overdrive suppression.²⁹ The duration of SRT also is dependent upon the rate, but not the duration, of the overdrive,²⁸ and it progressively increases as the pacing rate is increased from 90 to 130 beats/min. At pacing rates of about 150/min, however, a marked decrease in the pause has been noted, probably as a result of enhanced sympathetic discharge during very rapid pacing rates²⁸ or it may be due to some of the atrial impulses at this rapid rate encountering SAN entrance block and, thus, failing to suppress the SAN. The latter mechanism also may be responsible for false negative results with atrial pacing in some patients with SSS.³⁰ Atropine (1.5 mg-3.5 mg administered intravenous-

ly) usually diminishes but does not eliminate the SAN suppression.²⁸

Atrial pacing remains the most valuable test of SAN dysfunction, especially when SSS is suspected but SB or SA block may not be evident. The diagnosis of SSS depends upon the degree of overdrive suppression and is made if the SRT pause is over 128% of the control cycle at resting rates of 75-85/min and over 120% at lower resting rates like 45/min.³ The maximum pauses in SSS may reach two to six seconds. Mandel *et al* found a mean pause of 1041 ± 56 msec for normal controls as compared to a mean pause of 4732 ± 415 msec for patients with SSS.²⁸

TREATMENT

The presence of significant symptoms or more than one episode of syncope with SB or long pauses of sinus arrest or both indicate severe disease requiring the insertion of a permanent demand pacemaker. To date, the latter is the most effective treatment. Because of frequently associated A-V blocks and intraventricular conduction delays, it is best to use a ventricular pacemaker. In some instances, the pacemaker also may prevent the episodes of tachyarrhythmias. In the few in whom the tachyarrhythmias persist even in the presence of a pacemaker, drug therapy can be more safely used without fear of worsening the SB.

The effect of digitalis in the SSS is unpredictable. Engel *et al* reported an increase in automaticity of SAN with digitalis and found it very useful for congestive heart failure or tachyarrhythmias in their patients with SSS in the absence of significant AV conduction disease.³¹ However, Margolis *et al* recently reported that digoxin in a common clinical dose and at a low serum level brought out severe SB as a manifestation of SAN dysfunction.³² Caution should be used when administering the digitalis group of drugs to patients with SSS.

SSS is usually chronic and runs an erratic course with alternating periods of normal and abnormal SAN function. SB may progress to various forms of exit blocks or may become increasingly severe. The escape mechanisms, at first periodic rescuers, may become the basic mechanisms, e.g., atrial fibrillation. Unfortunately, they also do not function indefinitely. At present, it appears that SAN dysfunction may progress quite slowly taking five to ten years or more to completely cease functioning.

In the studies reported by Rubenstein *et al*, the average time that elapsed between the onset of symptoms and the need of pacemaker was three and a half years.²¹

(Continued on page 274)

Granulocytic Sarcoma: Nodal Infiltration in Chronic Granulocytic Leukemia

Case Report

THE DIFFERENTIAL DIAGNOSIS of a patient who presents with massive cervical and supraclavicular lymphadenopathy would include malignant lymphoma, Hodgkin's disease, chronic lymphocytic leukemia, granulomatous diseases such as tuberculosis or sarcoid and, possibly, the collagen vascular diseases or infectious mononucleosis. For practical purposes, chronic granulocytic leukemia (CGL) would not be included because of the rarity with which this disorder evolves into granulocytic sarcoma. Granulocytic sarcoma has an ominous significance and heralds the onset of the blast crisis or accelerated phase of CGL.^{1, 2} Thus,

adenopathy, if it develops at all in CGL, is a feature of advanced disease.³ This is a report of a patient with CGL who presented to his private physician because of the rapid appearance of massive cervical, supraclavicular and inguinal lymphadenopathy.

CASE REPORT

A 50-year-old white man was essentially asymptomatic until three to four weeks prior to admission when he rapidly developed bilateral cervical, supraclavicular and inguinal adenopathy. It was initially felt that he had a lymphoma, but he was rapidly diagnosed by his private physician (T. S.) as having CGL. He was started on treatment with busulfan. Despite this, his cervical adenopathy progressed to such an extreme degree that the patient developed dysphagia and mild respiratory distress. He was referred to Ellis Fischel State Cancer Hospital for further evaluation and treatment.

At the time of admission, the patient had massive cervical adenopathy (Fig. 1). The liver was palpable 2 cm below the right costal margin and the spleen was palpable 8 cm below the left costal margin. The total white blood cell count was 146,000/cu mm with 6% myeloblasts, 3% promyelocytes, 16% metamyelocytes, 17% band neutrophils, 17% segmented neutrophils, 8% basophils, 6% eosinophils, 6% monocytes and 3% lymphocytes. The hemoglobin level was 11.5 gm/100 ml; hematocrit value, 33%; and platelet count, 1,160,000/cu mm. The leukocyte alkaline phosphatase was 5 units/100 WBC. The bone marrow was markedly hypercellular with a myeloid : erythroid ratio of greater than 25 : 1 (Fig. 2). A lymph node biopsy, which was performed, demonstrated infiltration with primitive myeloblastic cells (Fig. 3). Karyotyping of his peripheral blood and bone marrow was attempted, but preparations were unsatisfactory.

The diagnosis of CGL was felt to be confirmed, the busulfan was continued at a dose of 8 mg p.o. daily, and radiation therapy was administered to the bulky cervical nodes. He received a total dose of 1,450 rads to the right lateral neck and 550 rads to the left lateral neck with marked regression of the adenopathy and disappearance of his dysphagia and respiratory symptoms.

The busulfan was continued at a dose of 8 mg daily until his total white blood cell count had decreased to 53,000, at which time it was decreased to 4 mg daily. The busulfan was discontinued when the white count reached 20,000. Despite what was felt to be conserva-



Fig. 1 Photograph of the patient demonstrating massive cervical lymphadenopathy.

tive management, he became profoundly pancytopenic after the discontinuation of therapy. Bone marrow aspiration was attempted and no marrow could be obtained. Suspecting that the patient's bone marrow was severely hypoplastic secondary to therapy, a marrow biopsy was performed. As shown in Fig. 4, however, the marrow was packed with primitive blast cells. The patient had evolved directly into a blast crisis. Sepsis developed and he died despite antibiotic therapy. The total course of his illness was less than 90 days.

DISCUSSION

Chronic granulocytic leukemia typically is a disease with a prolonged chronic phase of from one to four or more years. The chronic phase is responsive to treatment with a variety of agents such as busulfan, melphalan and hydroxyurea.⁴ This usually is followed by an accelerated phase or "blast crisis" which is generally refractory to therapy.⁵

Marked lymph node enlargement may occur late in the course of CGL, usually with the development of the blast crisis.³ In the past, many of these cases were interpreted as the appearance of a "lymphoma" in a patient with preexisting CGL.⁶ By more critical evaluation of lymph node sections and the examination of Wright stained touch-preparations, the cells infiltrating the nodes can be identified as primitive myeloblastic cells.⁷

The fact that our patient presented with massive lymphadenopathy implies that he had advanced disease and a massive tumor burden. Since granulocytic sarcoma is generally seen late in the disease, he must have had either an especially aggres-

Granulocytic sarcoma is a complication of advanced chronic granulocytic leukemia (CGL). The condition has been confused with malignant lymphomas. This patient presented with the simultaneous onset of granulocytic sarcoma and CGL without going through the typical chronic phase of CGL. This suggests that he had an asymptomatic chronic phase or an especially aggressive form of the disease.

Dr. Kardinal is Chief of Staff and Director of Internal Medicine and Dr. Barnes is Associate Pathologist and Director of Clinical Laboratories, Ellis Fischel State Cancer Hospital and Cancer Research Center. Dr. Spooner is in private practice. This investigation was supported in part by Western Cancer Study Group Public Health Service Grant CA 06800 from the National Cancer Institute.

sive form of CGL or an asymptomatic chronic phase.

There has been no significant improvement in the treatment of CGL since the introduction of busulfan in 1953.⁸ Therapy has been directed predominately toward the suppression of granulocyte production with subsequent control of elevated leukocyte numbers, reduction of splenomegaly and subjective improvement. Despite the ease with which the chronic phase may be brought under control, the onset of the blast phase is not delayed and the patient dies with a median survival of 30

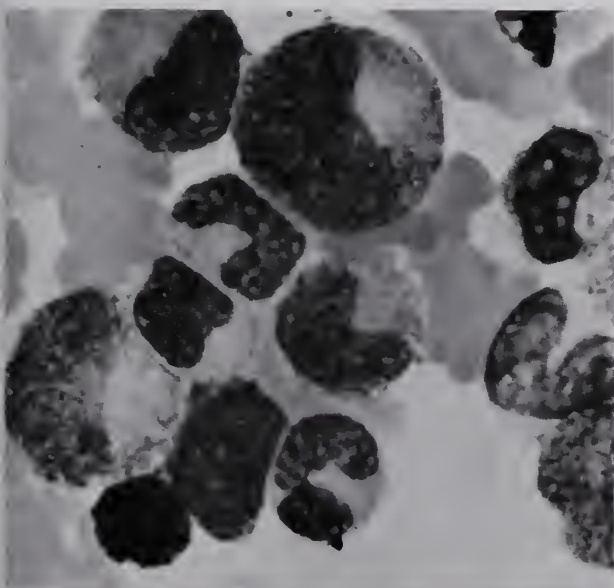


Fig. 2 Smear of bone marrow shows marked myeloid proliferation. All maturation stages of granulocytoblasts are present. These findings are typical of CGL.

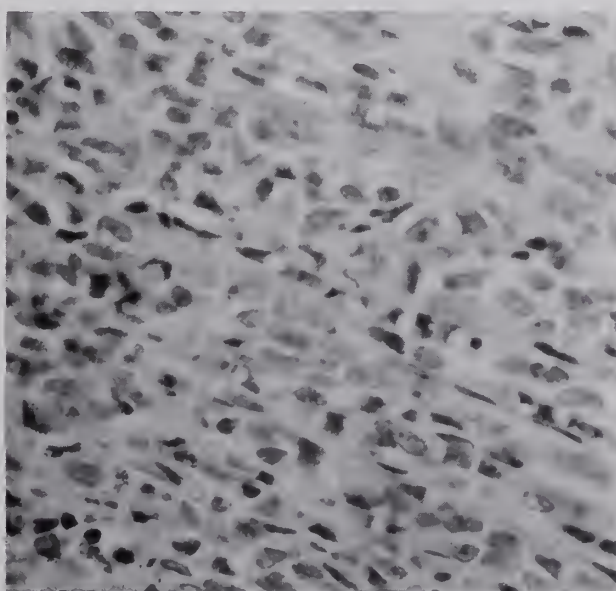
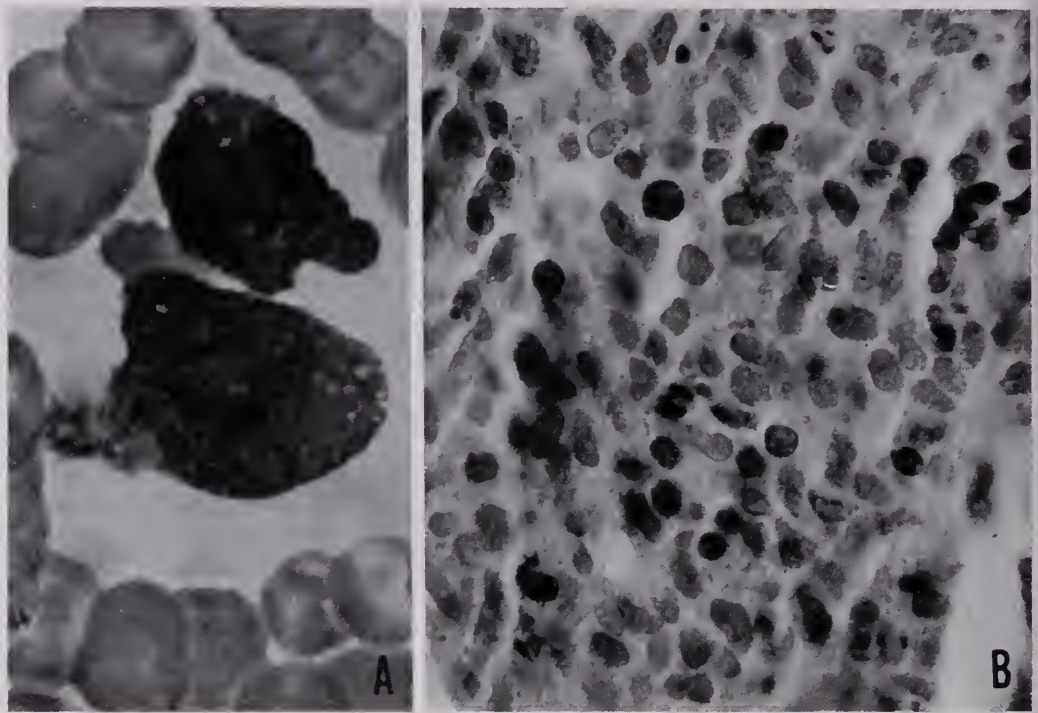


Fig. 3 Effacement of normal inguinal lymph node architecture by primitive myeloblasts.

Fig. 4 (A) Two myeloblasts present in the bone marrow smears. (B) Biopsy section of the marrow showing infiltration by myeloblasts. Note similarity to Fig. 3.



to 48 months from the time of diagnosis. It is doubtful that suppressive therapy prolongs survival.⁹

A new approach to the therapy of CGL was introduced by Sokal.¹⁰ This was an attempt to delay or prevent the onset of the accelerated phase by immunizing the patient with cultured leukemic blast cells and BCG vaccine. While the preliminary data appeared promising, the follow-up data have been somewhat disappointing.¹¹

Lymphadenopathy in CGL (granulocytic sarcoma) continues to have an ominous prognosis as our case demonstrates. New approaches to treatment are desperately needed. Further therapy which attempts to delay or prevent the onset of the accelerated phase should be a dominant area in the clinical research of chronic granulocytic leukemia.

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The Missouri State Allergy Association announces that the following physicians were elected at the 1976 Annual Scientific and Business Meeting at Crown Center in Kansas City. They are Drs. Robert Bolinske, St. Louis, president; Donald Youll, Kansas City, president-elect; and J. Allen Thiel, St. Louis, secretary-treasurer. Drs. Philip C. Anderson of Columbia, Raymond G. Slavin of St. Louis and T. Reed Maxon of Warrensburg were elected to the Board of Directors. Dr. James W. Willoughby, Kansas City, was elected Executive Secretary.

DAVID J. HARRIS, M.D. *and*
MICHAEL L. BEGLEITER, M.S., *Kansas City*

First Year's Experience in a New Genetics Clinic

THE FIELD OF MEDICAL GENETICS has experienced rapid development over the last few years. To demonstrate this growth, one need only compare the number of disorders for which mendelian patterns of inheritance were hypothesized in 1958 and in 1971 (Table 1). In a span of just 13 years, the number of disorders for which a genetic etiology was proven or suspected has increased more than four and a half times. This increase in genetic knowledge has led to a greater interest in and demand for genetic counseling services. In an attempt to offer assistance to those families with disorders in which hereditary factors are suspected, the Genetic Counseling Center of The Children's Mercy Hospital was established in July, 1974. This paper reports the first year's experience in this genetics clinic which was organized to provide expanded services to parents and children.

The Genetic Counseling Center is staffed by one full-time pediatric geneticist, a half-time pediatric neurologist with special interest in genetics, a genetic counseling associate (Master's level training in human genetics) and a computer programmer. A cytogenetics technologist, a biochemical genetics laboratory technician and a clerical assistant complete the staff. In order to provide a comprehensive genetic facility, these individuals, using a team approach, have made the following services available: complete family history and pedigree analysis, diagnostic physical examination, chromosome analysis and karyotyping, extensive biochemical testing, genetic counseling and a comprehensive report to the referring physician and family.

An estimate of the number of individuals who

The authors present an overview of their first year's experience in a new genetics clinic. They describe the services available and how genetic counseling is rendered and provide a summary of the patient load. Dr. Harris is a Pediatric Geneticist and Mr. Begleiter is a Genetic Counselor Associate at The Children's Mercy Hospital. This work was supported in part by grants from the Carrie J. Loose Trust, the Victor Speas Trust and funds from the Children's Mercy Hospital.

might benefit from genetic counseling has been made. Defining our Center's main region as the western one-half of Missouri and the eastern one-third of Kansas, the population base comprises approximately 3 million individuals. This area produces approximately 47,000 births per year including more than 900 infants with significant birth defects. (Two per cent of all births in the U. S. produce infants with significant congenital defects.) This estimate is for newborns only and does not include young children and adults with genetic problems. (It should be noted that this patient load and geographical area is shared with the genetics service at the University of Kansas Medical Center in Kansas City, Kan.) In March of 1975, an informational brochure explaining the facilities was sent to 1,600 physicians in a 32-county area of Missouri. It was hoped that this pamphlet would make the medical community aware of this new referral service.

The current procedure for genetic counseling services begins by taking a detailed family history. Initially, a three-generation pedigree is drawn and stored by computer for future analysis (Fig. 1). In those families for whom it is necessary, additional family information is collected. This information-taking session permits the physician geneticist or genetic counselor associate to develop an understanding of the anxieties and concerns of the family. Both parents and the affected child usually are present. The physician geneticist then performs a

TABLE 1
NUMBER OF GENETIC DISEASES KNOWN¹

Year	Autosomal Dominant	Autosomal Recessive	X-Linked	Total
1958	285	89	38	412
1966	837	531	119	1,487
1968	793	629	123	1,545
1971	943	783	150	1,876

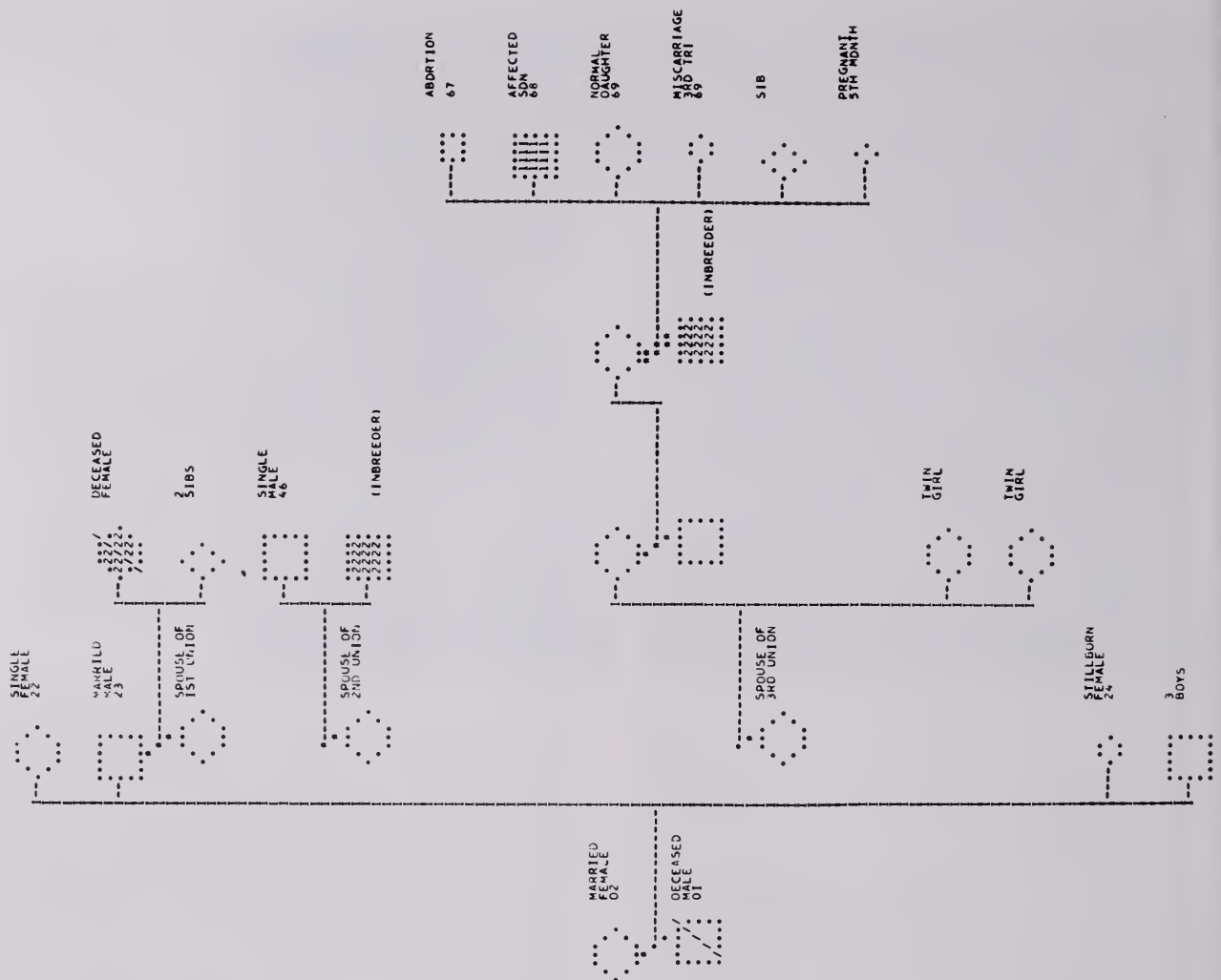


Fig. 1 Computer-drawn family pedigree.

complete physical examination and initiates the laboratory studies necessary to complete the diagnosis. When indicated, pediatric subspecialists from The Children's Mercy Hospital staff are consulted to aid in the diagnosis. A second appointment is then given to the family. Prior to this second visit, a complete literature search of the disorder in question is completed. At the second session, when possible, a diagnosis is given and a discussion concerning care of the affected individuals, recurrence risks and prenatal diagnosis (if applicable) is initiated. An attempt is made to help the family make the best possible adjustment to this information. The family members are invited and encouraged to return to the Genetic Counseling Center as often as they feel necessary. The patients are advised that they and their physician will receive a letter summarizing the genetic counseling sessions. All families are followed on an annual basis, at which time an evaluation of their understanding of and satisfaction with the service is made.

faction with the service is made.

In its first year of operation, the Center's staff has had 85 requests from members of The Children's Mercy Hospital staff for assistance in establishing a diagnosis. Table 2 lists these disorders by pattern of inheritance. The table clearly demonstrates that these children represented difficult diagnostic problems and that many of them will remain diagnostic enigmas for their entire lives. Table 3 lists these disorders for which genetic counseling was given. Fifty-four per cent of the families counseled were for mendelian genetic defects, 12% were chromosomal, 10% were multifactorial and 5% were for nongenetic problems. Nineteen per cent of the families received counseling without a definitive diagnosis. This 19% of patients with defects of unknown etiology compares favorably with the 29% figure reported by others for satellite genetic counseling clinics.²

The staff of the Genetic Counseling Center also

TABLE 2

DISORDERS FOR WHICH CONSULTATION REQUESTS WERE MADE	
<i>Autosomal Dominant</i>	
Achondroplasia	1
Apert's Syndrome	1
Charcot-Marie-Tooth Disease	1
Cleidocranial Dysostosis	1
Elliptocytosis	1
Noonan's Syndrome	4
Polycystic Kidneys	1
Tuberous Sclerosis	1
Total	11
<i>Autosomal Recessive</i>	
α -Thalassemia	1
Beckwith Syndrome	1
Cerebro-costo-mandibular Syndrome	1
Cystic Fibrosis	2
Glycogen Storage Disease Type II	1
Hydrocephalus	1
Hyperammonemia	1
Larsen Syndrome	1
Meckel Syndrome	1
Thanatophoric Dwarf	1
Total	11
<i>X-Linked</i>	
G-6-PD Deficiency	3
<i>Chromosomal</i>	
Ring 18	1
Trisomy 13	2
Trisomy 21	2
18p-	1
21/21 Translocation Downs'	1
Total	7
<i>Multifactorial</i>	
Tetralogy of Fallot	1
<i>Unknown Etiology</i>	
Acetonuria	1
Ambiguous Genitalia	2
Cloudy Corneas	1
Congenital Cataracts	2
Failure to Thrive	3
Holoprosencephaly	1
Lactic Acidosis	1
Macrocephaly	1
Major Congenital Anomalies	8
Mental-motor Retardation	2
Mental Retardation With Hepatosplenomegaly	1
Microcephaly	1
Minor Congenital Anomalies	6
Neonatal Hepatitis With Hemolytic Anemia	1
Neonatal Hypotonia	1
Possible DiGeorge Syndrome	1
Robin Anomalad	1
Seizure Disorder	9
Total	43
<i>Non-genetic</i>	
Drug Ingestion	1
Hypertrophic Hemangiectasia	1
Infant of Diabetic Mother	1
Maternal Deprivation	1
Normal Child	2
Porencephaly	1
Repeated Trauma, Emotional Deprivation	1
Slow Development	1
Total	9
Grand Total	85

TABLE 3

DISEASES AND CONDITIONS FOR WHICH GENETIC COUNSELING WAS GIVEN	
<i>Autosomal Dominant</i>	
Achondroplasia	1
Apert's Syndrome	1
Charcot-Marie-Tooth Disease	3
Craniooculodental Syndrome	1
Joint Laxity	1
Marfan's Syndrome	1
Multiple Hemangiomas	1
Myotonic Dystrophy	1
Neurofibromatosis	1
Sipple's Syndrome	1
Split-hand Deformity	1
Tuberous Sclerosis	1
Total	14
<i>Autosomal Recessive</i>	
Albinism	1
Cerebro-costo-mandibular Syndrome	1
Classical Galactosemia	1
Cornelia DeLange Syndrome	1
Cystic Fibrosis	27
Dystonia Musculorum Deformans	1
Galactosemia Heterozygote	1
Mucopolidosis II	1
Tay-Sachs Carrier Screening	2
Total	36
<i>X-Linked</i>	
Duchenne's Muscular Dystrophy	2
Ectodermal Dysplasia	1
Lowe's Syndrome	1
Spondyloepiphyseal Dysplasia Tarda	1
Total	5
<i>Chromosomal</i>	
Cri-du-chat	1
Ring 18	1
Trisomy 13	1
Trisomy 21	5
Turner's Syndrome	2
21/21 Translocation Down's	1
48, XXXX	1
Total	12
<i>Multifactorial</i>	
Allergies	1
Clubfoot	1
Meningomyelocele	4
Mental Retardation—Nonspecific	1
Tetralogy of Fallot	1
Transposition of the Great Vessels	1
Ventricular Septal Defect	1
Total	10
<i>Unknown Etiology</i>	
Cleft Lip, Palate and Hydrocephalus	1
Endocardial Fibroelastosis	1
Growth Retardation	1
Major Congenital Anomalies	7
Minor Congenital Anomalies	5
Neonatal Seizures	1
Psychomotor Retardation	1
Recurrent Abortions	1
Short Stature	1
Total	19
<i>Non-genetic</i>	
Biliary Atresia	1
Infant of Diabetic Mother	1
Multiple Hemangiomas	1
Normal Child	2
Total	5
Grand Total	101

is involved in defining the mechanisms of poorly understood diseases in which genetic factors are important. A detailed study of the inheritance of isolated congenital heart disease is presently under way. In addition, an evaluation of the prevalence of divorce among the families of children in the cystic fibrosis clinic is being undertaken. (Many members of the medical community share the opinion that families of children with genetic disease have a higher prevalence of divorce than families in the general population. Unfortunately, there are no data to support or contradict this belief.)

During its first year of operation, 101 families have received genetic counseling. The families

came from 20 counties in Missouri and seven counties in Kansas with the largest number of patients (64%) coming from the greater Kansas City area. It is hoped that the Center will provide genetic counseling services for an increasing number of patients.

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Sick Sinus Syndrome

(Continued from page 267)

With present knowledge, the long term prognosis of SSS cannot be stated with certainty in any one case. It is hoped that time and careful observation of these patients will provide more information.

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President's Message

Although unified membership with the American Medical Association was again turned down by the MSMA House of Delegates at the Annual Session in Kansas City in April, a majority of the votes were for the resolution, but were not the two-thirds majority needed to pass it.

It was gratifying to note the unanimous vote for unified membership by Jackson County delegates and the change in District 4 to a split vote from the unanimous stand against it last year. And, it was discouraging to see my own District 3 help to prevent passage of a new Bylaw that I believe to be all-important and necessary for the future of medicine. All of organized medicine should direct its efforts and energy toward the growth and unity of our profession. This cannot happen when a House of Delegates defeats a resolution for unity.

Sadly, there was a time when the AMA seemed to be a weak and do-nothing organization, but that has been changed and all for the better. Under new and dynamic leadership, the AMA is now truly a *federation of state medical associations* devoted to strengthening our Profession and willing to go to court if necessary to fight any unjust restriction.

A few examples are the following:

1. The AMA forced the Federal Government to withdraw the regulations in utilization review.
2. The AMA has gone to court against HEW on maximum allowable cost control for drugs.
3. The AMA is in court in regard to the federal bill creating Health System Agencies, a real intrusion on doctors' rights and a great danger to the practice of medicine as we know it today.

There are many other things the AMA is doing, such as its fight with the Federal Trade Commission. However, space is too limited to go into all of them here.

There are about 70,000 physicians and 100,000 house staff and medical students who do not belong to any branch of organized medicine—county, state or the AMA. An unsupported AMA is a disservice to the profession of medicine. Those of us who belong to the AMA and to the county societies and to the state associations are working hard for the entire Profession of Medicine. Non-members are obstructing the unity of the Profession of Medicine but are reaping the benefits of what the organized Profession of Medicine does for them.

Unified membership is the only means by which the intent and avowed purpose of organized medicine may be truly implemented. No segment of organized medicine or the profession can survive long alone. At the next annual convention of the MSMA, it is my fond hope and prayer that the MSMA will strengthen our Association and the AMA by voting for unified membership.



Max S. Franklin, M.D.



Woman's Auxiliary

*"From women's eyes this doctrine I derive;
They sparkle still the right Promethean fire;
They are the books, the arts, the academes,
That show, contain, and nourish all the world."*

WILLIAM SHAKESPEARE

National conventions conjure awesome visions to the uninitiated. For the MSMA Auxiliary delegation, however, the Bicentennial Convention in Dallas is anticipated as a time of excitement, learning and productive enjoyment. This year, Missouri's full complement of seven delegates and alternates will travel to Texas as representatives of our state and of 1,745 Auxilians. As in years past, these women attend at their own expense; they participate in five days of workshops, idea exchanges and program orientations in addition to the official business sessions.



Mrs. George P. Wilson
President

Comprehensive discussions will include a variety of subjects ranging from membership, finances, scholarship, projects and legislation to state problems, policies and solutions. In joint programming with the AMA Council on Scientific Assembly, we will attend lectures on recreational, retirement and investment real estate and Dr. Michael DeBaakey's "Advances in Cardiovascular Disease." In a lighter vein, Bess Myerson, Consumer Advocate, will address the Auxiliary assembly. Historic tours, elaborate youth programs and the opening of "Mame," starring Angela Lansbury, round out the scheduled events.

The meetings and workshops offered to physicians' wives through the Auxiliary must, of necessity, serve certain purposes. The planning and preparation must merit the response of women who are motivated to learn, who are willing to give of their time and energies and who are interested and concerned about their husbands' profession. Thorough and diverse in content, it is a deliberate attempt to promote worthwhile knowledge and more comprehensive understanding of issues.

While all physicians' wives are cordially invited to every Auxiliary function, Missouri's annual Dutch Treat breakfast is the only event at which we will have an opportunity to welcome wives and friends of Missouri's doctors. This is scheduled for Monday, June 28 at the Statler Hilton Hotel and is easily reserved by contacting Mrs. W. Jack Stelmach, Chairman.

The actions of the AMA House of Delegates are always of great interest, for upon their decisions are predicated the Auxiliary's directives and programming. Auxiliary attendance is welcomed and this again provides a great learning experience for those of us with enough energy to negotiate a second convention.

We take great pride in supporting Dr. Hubert Ritter of St. Louis, MSMA's nominee to the AMA Board of Trustees, and hope for the opportunity to contribute to the success of his candidacy.

This promises to be an exceptional Convention, to be sure. We know Missouri is ready for Texas; we hope Texas is ready for us!

County Society News

FIRST DISTRICT

COUNCILOR

JOHN N. MARTIN, M.D., ST. JOSEPH

BUCHANAN COUNTY MEDICAL SOCIETY

For the 24th year, members of the Buchanan County Medical Society and the Northwest Missouri Dental Society met in a joint session for a dinner and scientific program. Seventy physicians and dentists attended the meeting which was held at the Swiss Chalet in St. Joseph.

G. Tyson Carpenter, M.D. and Leland Wade, D.D.S. of Trenton presided jointly as presidents of the two organizations.

The speaker was Dr. Marvin E. Revzin, dean and professor of oral and maxillofacial surgery at the University of Missouri-Kansas City School of Dentistry, who discussed "The Temporomandibular Joint and Its Surgical Implications." The topic was of keen interest to members of both professions and the lecture was well received.

Prior to the meeting, members of the Medical Society discussed the proposed federal relicensure legislation. It was agreed that members who will do so will write to the Missouri senators and their congressman opposing the idea that could not help but reduce the already short supply of physicians, especially in the rural areas.

CARL K. NESS, M.D., *Secretary*

SECOND DISTRICT

COUNCILOR

J. RUSSELL COMER, M.D., NEW LONDON

CHARITON-MACON-MONROE-RANDOLPH COUNTY MEDICAL SOCIETY

The Chariton-Macon-Monroe-Randolph County Medical Society held its regular monthly meeting on May 13 in the Library Conference Room at Woodland Hospital.

The program was presented by Dr. Robert McDavid, who is from the Department of Obstetrics and Gynecology, University of Missouri-Columbia Medical Center.

Dr. McDavid discussed the newer concepts in the field of obstetrics and gynecology, some of which have not yet been universally accepted. He also discussed the history of fetal mortality, fetal monitoring, the Oxytocin Challenge Test for dia-

betic mothers and colposcopy in relation to the early diagnosis of cancer of the cervix. Other related subjects were discussed during a question-and-answer period.

Members who attended the meeting were Drs. R. L. Bautista, Jose Hori, C. C. Cohrs, T. S. Fleming, J. Will Fleming, Jr., R. V. Thompson, Josephine Baker, L. E. Huber, T. S. Lin, W. D. Chute and G. R. Hudson, Moberly; P. V. Dreyer, Huntsville; J. E. Campbell and D. E. Eggleston, Macon; F. A. Barnett, Paris; F. L. Harms, Salisbury; and D. D. Stuart, Brunswick. Dr. Leopold LaChance, Centralia, was a guest.

G. R. HUDSON, M.D., *Secretary*

GRAND RIVER MEDICAL SOCIETY

The Grand River Medical Society held its May meeting on May 13 at the Chillicothe Country Club.

William D. Bradshaw, M.D. of the University of Missouri-Columbia discussed "Continuing Medical Education." A question-and-answer period followed his presentation.

Other guests were the speaker, Mrs. June Lamme of the University of Missouri-Columbia Extension Service; Mr. Don Wilson of Jefferson City, MSMA Field Secretary; and Mr. Ron Ellison of Jefferson City, MSMA Executive Assistant.

Thirteen members of the Society attended the meeting.

WILLIAM L. FAIR, M.D., *Secretary*



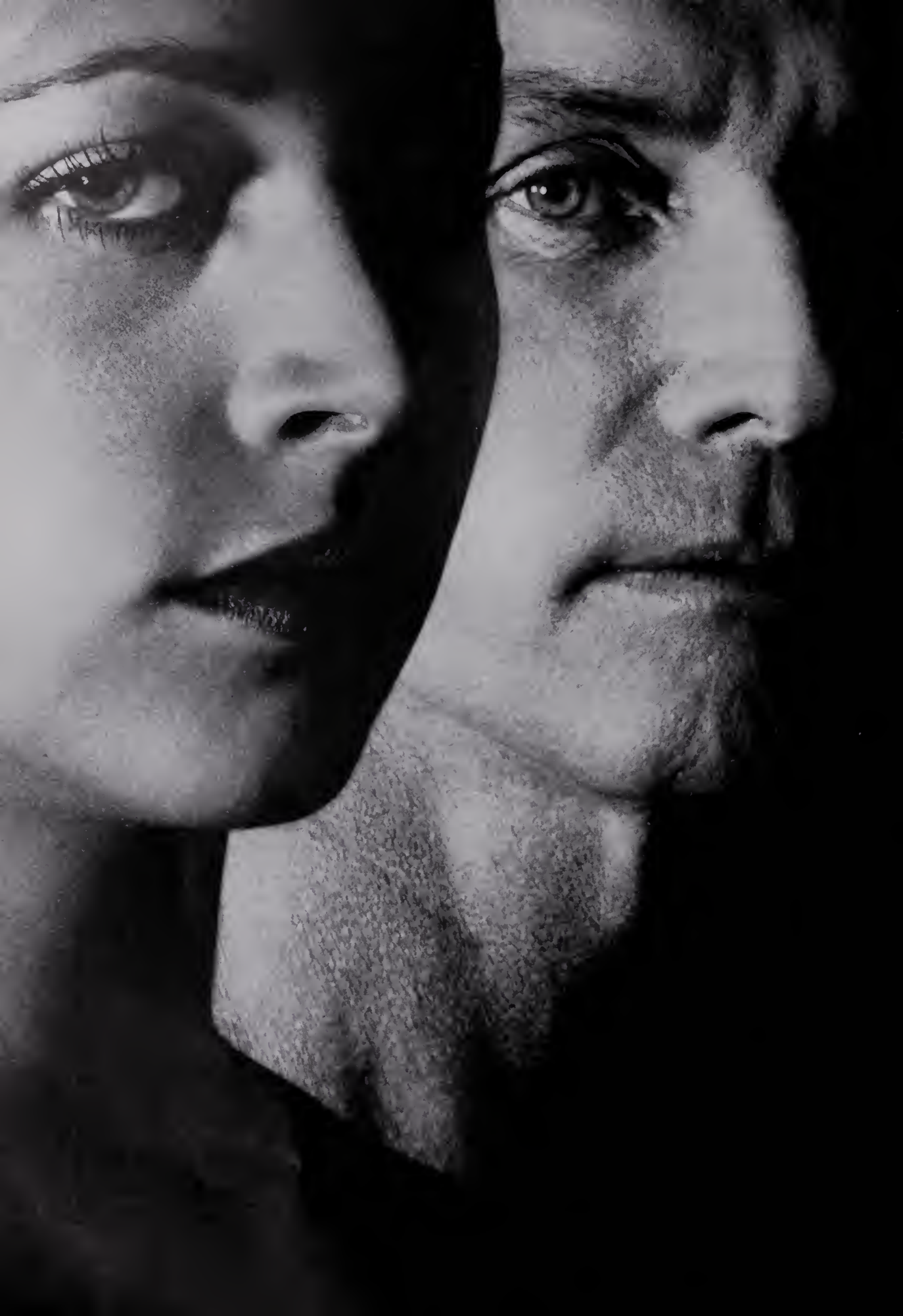
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Testing in Humans: Who, Where & When.

Weight of ethical opinion:

Few would disagree that the effectiveness and safety of any therapeutic agent or device must be determined through clinical research.

But now the *practice* of clinical research is under appraisal by Congress, the media and the general public. Who shall administer it? On whom are the products to be tested? Under what circumstances? And how shall results be evaluated and disseminated?

The Pharmaceutical Manufacturers Association represents firms that are significantly engaged in the discovery and development of new medicines, medical devices and diagnostic products. Clinical research is essential to their efforts. Consequently, PMA formulated positions which it submitted on July 11, 1975, to the Subcommittee on Health of the Senate Labor and Public Welfare Committee, as its official policy recommendations. These are the essentials of PMA's current thinking in this vital area.

1. PMA supports the mandate and mission of the National Commission for the Protection of Human Subjects of Medical and Behavioral Research and urges to establish a special committee composed of experts of appropriate disciplines familiar with the industry's research methodology to volunteer its advice to the Commission.

2. PMA supports the formation of an independent, expert, broadly based and representative panel to assess the current state of drug innovation and the impact on it of existing laws, regulations and procedures.

3. When FDA proposes regulations, it should prepare and publish in the *Federal Register* a detailed statement assessing the impact of those regulations on drug and device innovation.

4. PMA proposes that an appropriately qualified medical organization be encouraged to undertake a comprehensive study of the optimum roles and responsibilities of the sponsor and physician when company-sponsored clinical research is performed by independent clinical investigators.

5. PMA recognizes that the physician-investigator has, and should have, the ultimate responsibility for deciding the substance and form of the informed consent to be obtained. However, PMA recommends that the sponsor of the experiment aid the investigator in discharging this important responsibility by providing (1) a document detailing the investigator's responsibilities under FDA regulations with regard to patient consent, and (2) a written description of the relevant facts about the investigational item to be studied, in comprehensible lay language.

6. In the case of children, the sponsor must require that informed consent be obtained from a legally appropriate representative of the participant. Voluntary consent of an older child, who may be capable of understanding, in addition to that of a parent, guardian or other legally responsible person, is advisable. Safety of the drug or device shall have been assessed in adult populations prior to use in children.

7. PMA endorses the general principle that, in the case of the mentally infirm, consent should be sought from both an understanding subject and from a parent or guardian, or in their absence, another legally responsible person.

8. Pharmaceutical manufacturers sponsoring investigations in prisons must take all reasonable care to assure that the facilities and personnel used in the conduct of the investigations are suitable for the protection of participants, and for the avoidance of coercion, with a respect for basic humanitarian principles.

9. Sponsors intending to conduct non-therapeutic clinical trials through the participation of employee volunteers should expand the membership and scope of its existing Medical Research Committee, or establish such an internal Medical Research Committee, with responsibility to approve the consent forms of all volunteers, designs, protocols and the scope of the trial. The Committee should also bear responsibility to ensure full compliance with all procedures intended to protect employee volunteers' rights.

10. Where the sponsor obtains medical information or data on individuals, it shall be accorded the same confidential

status as provided in codes of ethics governing health care professionals.

11. PMA and its member firms accept responsibility to aid and encourage appropriate follow-up of human subjects who have received investigational products that cause latent toxicity in animals or, during their use in clinical investigation, are found to cause unexpected and serious adverse effects.

12. PMA supports the exploration and development by its member companies of more systematic surveillance procedures for newly marketed products.

13. When a pharmaceutical manufacturer concludes, on the basis of early clinical trials of a basic new agent, that a new drug application is likely to be submitted, a proposed development plan accompanied by a summary of existing data, would be submitted to the FDA. Following a review of this submission, the FDA, and its Advisory Committee where appropriate, would meet with the sponsor to discuss the development plan. No formal FDA approval should be required at this stage. Rather, the emphasis should be on identification of potential problems and questions for the sponsor's further study and resolution as the program develops.

The PMA believes that health professionals as well as the public at large should be made aware of these 13 points in its Policy on Clinical Research. For these recommendations envisage constructive, cooperative action by industry, research institutions, the health professions and government to encourage creative and workable responses to issues involved in the clinical investigation of new products.



Pharmaceutical Manufacturers Association
1155 Fifteenth Street, N.W.
Washington, D. C. 20005

New Members

Kenneth Azan, M.D., 1718 S. Ingram, Sedalia 65301, has become a member of Pettis County Medical Society. Dr. Azan is a native of Jamaica, received his preliminary education at Knox College and his M.D. degree at the University of the West Indies in 1969. Dr. Azan specializes in internal medicine and cardiology.

Richard J. C. Brown, M.D., 1245 Graham Rd., Florissant 63031, has become a member of St. Charles-Lincoln County Medical Society. Dr. Brown is a native of Wisconsin, received his preliminary education at the University of Wisconsin and his M.D. degree at the University of Wisconsin in 1959. He specializes in plastic surgery.

Nestor R. Canoy, M.D., Ellis Fischel State Cancer Hospital, Columbia 65201, has become a member of Boone County Medical Society. Dr. Canoy is a native of the Philippines, received his preliminary education at the University of the Philippines and his M.D. degree at the University of the Philippines in 1953. He specializes in radiology.

Moo H. Chung, M.D., 600 E. 22nd, Kansas City 64108, has become a member of Jackson County Medical Society. Dr. Chung is a native of Korea, received his preliminary education at National Kyungpook University and his M.D. degree at National Kyungpook University in 1971. He specializes in psychiatry.

Desmion M. Dizney, M.D., Student Health Services, Northwest Missouri State University, Maryville 64468, has become a member of Northwest Missouri Medical Society. Dr. Dizney received her preliminary education at the University of Steffenbosch and her M.D. degree at the University of Pretoria in 1950. She is in general practice.

David W. Drake, D.O., 1325 S. Grand, St. Louis 63104, has become a member of St. Louis Medical Society. Dr. Drake is a native of Ohio, received his preliminary education at Ohio State University and his M.D. degree at the College of Osteopathy in 1974. He specializes in obstetrics and gynecology.

Frank L. Emert, Jr., M.D., 1701 S. Lafayette, Sedalia 65301, has become a member of Pettis County Medical Society. Dr. Emert is a native of El Dorado, Ark., received his preliminary education at the University of Arkansas and his M.D. degree at the University of Missouri in 1971. He specializes in ophthalmology.

Mohan N. Jham, M.D., 1465 S. Grand, St. Louis 63104, has become a member of St. Louis Medical Society. Dr. Jham is a native of Pakistan, received his preliminary education at the University of Bombay and his M.D. degree at Topiwala National Medical College in 1967. He specializes in radiology.

Thomas W. Johnson, M.D., 201 E. Armour, Kansas City 64141, has become a member of Jackson County Medical Society. Dr. Johnson is a native of Arkansas, received his preliminary education at Murray State University and his M.D. degree at the University of Tennessee in 1951. He is in family practice.

Lawrence W. Keefe, M.D., 4511 Forest Blvd., St. Louis 63108, has become a member of St. Charles-Lincoln County Medical Society. Dr. Keefe is a native of Albany, N. Y., received his preliminary education at the University of Illinois and his M.D. degree at Creighton School of Medicine in 1964. He specializes in radiology.

John Lackey, M.D., 1718 S. Ingram, Sedalia 65301, has become a member of Pettis County Medical Society. Dr. Lackey is a native of St. Louis, received his preliminary education at the University of Missouri and his M.D. degree at the University of Missouri in 1968. He specializes in obstetrics and gynecology.

Jose G. Maza, M.D., 1515 Lafayette, St. Louis 63104, has become a member of St. Louis Medical Society. Dr. Maza is a native of El Salvador, received his preliminary education at Institute Catolico de Oriente and his M.D. degree at National University of San Salvador in 1969. He specializes in radiology.

Tehmton S. Mistry, M.D., 453-B S. Clay, St. Louis 63122, has become a member of St. Louis Medical Society. Dr. Mistry is a native of India. He received his M.D. degree at Grant Medical College in 1968. He specializes in obstetrics and gynecology.

Lourdes Sy Pardo, M.D., 12 Meramec Heights, Professional Bldg., Highway 21, Arnold 63010, has become a member of St. Louis Medical Society. Dr. Pardo received her preliminary education at Santo Tomas University and her M.D. degree at Santo Tomas University in 1957. She specializes in pediatrics.

Chong K. Park, M.D., 6151 Oakland, St. Louis 63139, has become a member of St. Louis Medical Society. Dr. Park is a native of China, received his preliminary education at Yonsei University and his M.D. degree at the University of Yonsei in 1969. He specializes in obstetrics and gynecology.

Harshadrai Parmar, M.D., 2639 Miami, St. Louis 63118, has become a member of St. Louis Medical Society. Dr. Parmar is a native of India, received his preliminary education at D.K.V. Science College and his M.D. degree at M.P. Shah Medical College in 1970. He is in general practice.

John Rees, M.D., 213 W. Commercial, Kahoka 63445, has become a member of Lewis-Clark-Scotland-Dade County Medical Society. Dr. Rees is a native of Illinois, received his preliminary education at the University of Chicago and his M.D. degree at the University of Texas in 1974. He is in general practice.

Louis J. Scheinman, M.D., 1020 Raritan Dr., St. Louis 63119, has become a member of St. Louis Medical Society. Dr. Scheinman is a native of Canada, received his preliminary education at Boston

University and his M.D. degree at Boston University in 1975. He is an intern.

Sherman J. Silber, M.D., 522 North New Ballas Rd., St. Louis 63141, has become a member of St. Louis County Medical Society. Dr. Silber is a native of Chicago, Ill., received his preliminary education at the University of Michigan and his M.D. degree at the University of Michigan in 1966. He specializes in urology.

Wong J. Sull, M.D., 430 W. Broadway, Sedalia 65301, has become a member of Pettis County Medical Society. Dr. Sull is a native of Korea, received her preliminary education at Seoul National University and her M.D. degree at Seoul National University in 1966. She specializes in general and vascular surgery.

A. Robert Tantleff, M.D., 6400 Prospect, Kansas City 64132, has become a member of Jackson County Medical Society. Dr. Tantleff is a native of Brooklyn, N. Y., received his preliminary education at Brooklyn College and his M.D. degree at SUNY-Dow State Medical Center in 1971. He specializes in diagnostic radiology.

(Continued on page 282)

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J. Regan Thomas, M.D., 3205 Lansing Ave., Columbia 65201, has become a member of Boone County Medical Society. Dr. Thomas is a native of Missouri, received his preliminary education at Drury College and his M.D. degree at the University of Missouri in 1972. He specializes in otorhinolaryngology.

Enrique F. Toro, M.D., 915 N. Grand, St. Louis 63106, has become a member of St. Louis Medical Society. Dr. Toro is a native of Argentina. He received his M.D. degree at National College in 1968. He specializes in internal medicine (hematology).

Clark Watts, M.D., University of Missouri Medical Center, Section of Neurosurgery, Columbia 65201, has become a member of Boone County Medical Society. Dr. Watts is a native of Texas, received his preliminary education at the University of Texas and his M.D. degree at Southwestern Medical School in 1962. He specializes in neurosurgery.

In Memoriam

Robert A. Woodruff, Jr., M.D., 4940 Audubon Ave., St. Louis 63110, a graduate of Harvard Medical School, 1960; member St. Louis Medical Society; age 41; died April 9, 1976.

Leo J. Benson, Jr., M.D., 217 College, Kennett 63857, a graduate of the University of Arkansas, 1955; member Dunklin County Medical Society; age 52; died May 17, 1976.

Edward J. Weidmaier, M.D., 2929 Baltimore, Kansas City 64108, a graduate of the University of Texas, 1965; member Jackson County Medical Society; age 40; died May 17, 1976.

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Indications. For the treatment of ascariasis (roundworm infection) and enterobiasis (pinworm infection).

Warnings. *Usage in Pregnancy:* Reproduction studies have been performed in animals and there was no evidence of propensity for harm to the fetus. The relevance to the human is not known.

There is no experience in pregnant women who have received this drug.

The drug has not been extensively studied in children under two years; therefore, in the treatment of children under the age of two years, the relative benefit/risk should be considered.

Precautions. Minor transient elevations of SGOT have occurred in a small percentage of patients. Therefore, this drug should be used with caution in patients with preexisting liver dysfunction.

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The Council Reports

Meeting of May 24, 1976

John N. Martin, M.D., St. Joseph, Chairman, called the meeting to order. Those present were Drs. Martin; Max S. Franklin, St. Louis; Howard J. McAlhany, Springfield; John I. Matthews, Jefferson City; R. Allen Chandler, Kansas City; Donald Judd, St. Louis; Louis P. Hetlage, Troy; H. Peter Ekern, Mexico; R. John Torontow, Nevada; Andrew McCause, Kansas City; Walter German, Springfield; C. W. Cooper, Thayer; E. T. Hansbrough, Poplar Bluff; Stanley S. Peterson, Springfield; Rae W. Froelich, Lebanon; Hubert A. Ritter, St. Louis; Robert A. Slickman, Kansas City; James T. Brown, Springfield; William C. Allen, Columbia; William Stoneman, St. Louis; Herbert R. Domke, Jefferson City; Messrs. Hollister S. Smith, St. Louis; Jim Thompson, Springfield; Mrs. George P. Wilson, Columbia; Mrs. W. Jack Stelmach, Kansas City; Messrs. Ray McIntyre, Royal O. Cooper, C. C. Swarens, Ron Ellison, Don Wilson, David Carr, Staff.

Chairman Martin opened the meeting by calling for approval of the minutes of the Council Meeting held on April 4, 1976. On motion, duly seconded, the minutes were approved as distributed.

BUDGET AND FINANCE COMMITTEE

Dr. Martin named the following physicians to the MSMA Budget and Finance Committee for the year 1976-1977: Drs. Bradley, Chairman; Franklin, Martin, Hetlage, McAlhany and McCause.

COUNCILOR ADVISORS

The following appointments as Councilor Advisors to the respective Commissions were made by Dr. Martin:

Continuing Education and Health Manpower—Andrew McCause, M.D.

Public Affairs—R. John Torontow, M.D.

Interspecialty Medicine—E. T. Hansbrough, M.D.

Medical Economics, Third Party Medicine and Government Relations—Louis P. Hetlage, M.D.

Medical-Legal Affairs—Howard J. McAlhany, M.D.

INTRODUCTIONS

The Chairman introduced the following new Councilors: Drs. Torontow, District # 6; Ekern, District # 5; and German, District # 8. He also introduced Mrs. George P. Wilson, President, and Mrs. W. Jack Stelmach, President-Elect of the MSMA Woman's Auxiliary, and Jim Thompson, Executive Secretary of Greene County Medical Society.

REPORT OF THE EXECUTIVE SECRETARY

Mr. McIntyre introduced Mr. Dave Carr as the new Director of Government Relations for the Missouri State Medical Association effective June 1, 1976.

Mr. Cooper gave an up-to-date rundown on Missouri State Medical Insurance, Inc., indicating that it has now been in operation for one year and has insured 587 physicians in the following classes: Class I—310; Class II—36; Class III—143; Class IV—32; Class V—19; Class VI—47. Approximately 15% of the practicing physicians are insured with MSMI.

Mr. McIntyre called upon Mr. Swarens to bring the Council up-to-date on the progress of AMCAP (American Medical Computer Assistance Programs). This is the firm

from AMA with which we are dealing regarding computerization. Several state associations and larger metropolitan societies are using their services. Mr. Swarens reported that our CPA has visited the set-up in Chicago and the AMCAP people have visited the MSMA headquarters. They are starting a data base and we are collecting information on our members who are not members of the AMA. Mr. Smithberg of AMCAP is to make up a time table of when we can begin the various phases. We hope to get this in time and set up so we can send out a complete mailing by July.

COUNCIL ACTION ON 1976 HOUSE OF DELEGATES RESOLUTIONS

The Council took the following action on resolutions passed by the 1976 MSMA House of Delegates at its Annual Meeting in April:

1—*Vice Councilor*—Referred to Committee on Constitution and Bylaws.

2—*Definition of Death*—Referred to Committee on Legislative Affairs.

3—*Dr.-Patient Confidentiality*—Referred to Commission on Medical Economics.

4—*Informed Consent*—House Referred to Committee on Legislative Affairs.

5—*Interspecialty Commission*—To Commission on Interspecialty Medicine.

6—*Medical Student Involvement*—To Commission on Public Affairs.

9—*Malpractice Suits*—Committee on Legislative Affairs and Commission on Medical-Legal Affairs.

10 & # 39—*Interim Session House—Council to Call Meeting*—To Committee on Constitution and Bylaws. Proposed change to be published twice.

11—*Liability Clearinghouse*—To Commission on Medical-Legal Affairs.

13—*Sudden Infant Death Syndrome*—Sent to Division of Health and Board of Health.

14—*Psychiatric Insurance Coverage*—Sent to Division of Mental Health, Division of Insurance, and referred to Committee on Legislative Affairs.

15—*Director, Department of Mental Health*—Sent to Director of Mental Health, Mental Health Commission and Missouri Psychiatric Association.

18—*Negotiations*—Referred to Commission on Medical Economics.

19—*PL 93-641*—To AMA, U. S. Senators and Representatives, Governor Bond.

20—*Medical Liability Crisis*—To Ad Hoc Committee on Professional Liability.

21—*Physician Assistants*—Referred to Committee on Legislative Affairs.

22—*PSRO*—Sent to AMA.

23—*Defense of Rights*—To Membership and AMA.

24—*Reimbursement for Utilization Review*—To AMA.

25—*CHAMPUS*—To AMA and CHAMPUS.

26—*Medicare Reimbursement*—To AMA and Commission on Medical Economics.

27—*Medicaid Reimbursement*—To Commission on Medical Economics.

28—*Welfare Marketing of Medicine*—Commission on

Medical Economics and Committee on Legislative Affairs.

29—PL 93-641—(See # 19).

31—*Health Manpower Legislation*—To Committee on Legislative Affairs and the AMA.

32—*U. S. Dept. of Health*—To HEW and AMA.

33—*AMA Collective Bargaining*—To AMA.

34—*JCAH*—To Joint Commission on Accreditation of Hospitals, AMA and Missouri Hospital Association.

35—*Quackery*—To AMA.

36—*Advertising*—House Referred to Commission on Medical Economics.

37—*Board of Healing Arts*—Committee on Legislative Affairs, Board of Healing Arts, Governor Bond.

39—*Fall Meeting*—(See # 10).

40—*Uniform Discharge Data*—Division of Health, Board of Health and Missouri Hospital Association.

43—*Create Ad Hoc Committee on Professional Liability*—Committee appointed.

44—*Fireworks*—Referred to Committee on Legislative Affairs.

45—*Temporary Licenses*—Board of Healing Arts and Missouri Hospital Association.

On motion, duly seconded, the above Council actions were approved.

REMARKS OF THE PRESIDENT

Dr. Franklin reported that he, along with others, recently attended the AMPAC Workshop in Washington. He indicated that he was somewhat disappointed in the overall meeting.

Dr. Franklin indicated that he had attended the St. Louis County Auxiliary installation and it was a very pleasurable affair.

He reported attending the dedication of new additions to St. Louis University Medical Center.

Regarding the Swine Flu situation, Dr. Franklin reported that he feels all physicians would participate.

REPORT OF THE FIELD SECRETARY

Mr. Don Wilson brought the Council up-to-date on his activities since he last reported regarding numbers of medical society meetings attended, etc. Some of the topics of major concern to the physicians in the field are still professional liability, Medicaid and Medicare. Mr. Wilson reported that private physicians seem to be very receptive to his visits. Dr. Martin thanked Mr. Wilson for his report and for the great job that he is doing in his face-to-face contact with Missouri physicians and indicated that with the employment of Mr. Carr, effective on June 1, the contact should be even better.

REPORT OF THE WOMAN'S AUXILIARY

Mrs. Sue Wilson, President, MSMA Woman's Auxiliary, reported that there were 176 registrants for the 1976 Woman's Auxiliary Annual Session. She indicated that since the Auxiliary opened the programs to nonmembers, it has found that it could not accommodate the influx of people. The silent auction netted \$1,300 for the MSMF.

Mrs. Wilson reported having attended the Illinois, Kansas and Iowa auxiliaries' Annual Sessions. She said that the MSMA Auxiliary is eager to help at the AMA Convention in Dallas and is supporting Dr. Ritter for election to the AMA Board of Trustees.

The Auxiliary has received a good deal of publicity on its program for the Heimlich Maneuver. It is getting coverage regarding this project in both the metropolitan areas.

The Auxiliary will undertake some new programs this year, particularly in regard to community health and on the family-health levels.

Mrs. Wilson reported that the Auxiliary members will

continue to work on legislation education. They also would like approval to continue the AMA-ERF project. On motion, duly seconded, such approval was granted.

Regarding the community health-family health project, Mrs. Wilson asked for Council approval for the Auxiliary to work with the American Cancer Society to develop educational material geared to the high school girl. Sponsorship would be by the local Auxiliary. The Council gave its approval for such sponsorship to assist in development of this program.

She then asked for Council approval for the development of teams of women who will be trained by the Missouri Division of Health to be available upon request to assist the private practicing physicians in the swine flu immunization program. On motion, duly seconded, the Council gave such approval.

Mrs. Wilson asked for Council approval for Auxiliary endorsement of the public health effort on the swine flu immunization program. The Council voted to extend such approval.

Permission also was granted by the MSMA Council for the Auxiliary to continue the immunization education program and distribution for another year. This was done in cooperation with the Missouri Division of Health.

AD HOC COMMITTEE ON MUTUAL ASSESSMENT COMPANIES

At the Council Meeting immediately prior to the Annual Session, the Ad Hoc Committee on Mutual Assessment Companies was redirected to investigate and report back in some detail on Medical Defense Associates, Ltd.

In the absence of Dr. Cope, Chairman of the Ad Hoc Committee, Mr. Cooper presented the Council with an analysis of the Constitution and Bylaws of Medical Defense Associates, Ltd. and a sample contract for the Council's information. Mr. Cooper stated that Dr. Cope feels that future reports to the Council will be similar to progress reports regarding how many physicians are insured, how many hospitals, premium dollars, claims experience, etc.

After discussion regarding Medical Defense Associates, Ltd., the following motion was made:

1. That the Council point out to the membership of MSMA that we have received descriptive information on Medical Defense Associates, Ltd.
2. We are conducting an ongoing study of the company with adequate legal advice.
3. We have not accepted, rejected or endorsed this company in the past or at the present time.

The above motion was seconded and carried.

AD HOC COMMITTEE—19TH ANNUAL SESSION

In the absence of Dr. George Ladyman, Chairman of the Ad Hoc Committee on the 119th Annual Session, Mr. Ellison gave the following brief report.

The Committee met on May 15 and critiqued the 118th Annual Session. Overall attendance was very good and the Committee feels that the same format should be continued. The Committee discussed the emphasis now being given to CME and felt that, possibly, in the future it might be necessary to expand the length of the Annual Session so that physicians can take advantage of additional scientific sessions.

Topics suggested for the General Session at the 119th Annual Session were National Health Insurance, Health Services Areas and Professional Liability.

Mr. Swarens indicated that the practice management workshop held during the Annual Session was well received. Another workshop is being planned for next year and will focus on the financial aspects of office management.

CONTINUING MEDICAL EDUCATION

Again, Mr. Ellison reported in the absence of Dr. Ladyman, Chairman of the Councilor District Directors on CME. They held a meeting on May 15, and the following statistics were given regarding participations in the MSMA-CME Program. There are 18 hospitals, organizations or medical societies in the process of reviewing the criteria an organization must meet to become accredited. There are 15 hospitals, organizations or medical societies that, after reviewing the criteria, are now in the process of completing the presurvey questionnaire.

During this meeting, Dr. Ladyman outlined the following steps that an institution and organization would follow to become accredited for sponsoring CME activities:

1. Letter expressing desire to become accredited for sponsoring CME activity. Upon receipt of this letter, the criteria that an institution must meet to become accredited and other pertinent information is then forwarded to that institution or organization.
2. Receipt of the postcard which indicates to the MSMA that the institution has reviewed the criteria and feels that they meet the criteria set forth. At that time, the presurvey questionnaire is forwarded to that institution.
3. Receipt of the completed presurvey questionnaire.
4. The completed questionnaire is referred to the Councilor District Directors on CME for their review. After it has been determined that an institution qualifies, a date for a site team review will be set.
5. The site team reviews the institution seeking accreditation as a sponsor for continuing medical education.
6. Recommendation of this site team.

During this meeting, the questionnaires of four institutions were approved and a date will be selected for a site team visit. Dr. William D. Bradshaw was appointed as the 5th Councilor District Director to replace Dr. Roland Lohmar.

Mr. Ellison reported to the Council that in March of 1975, the MSMA's CME program had received a one-year accreditation from the AMA. It is hoped that by the September Council meeting, the program will have received a four-year accreditation from the AMA.

A motion to approve this report was made, seconded and carried.

REMARKS OF THE AMA DELEGATES

Dr. Ritter outlined for the Council various aspects of his campaign for the AMA Board of Trustees. Nine members of the MSMA Auxiliary will be present at the AMA Meeting. Dr. Ritter reported that the Auxiliary members had agreed to do anything they can to help him with his campaign. Dr. Ritter indicated that the various state delegations are being contacted to arrange a time for him to visit the delegation in Dallas.

Dr. Ritter pointed out that the MSMA also has another candidate—Dr. Joseph White who is running for reelection to the Council on Medical Education.

Dr. Froelich stated that he feels that there are three major questions facing organized medicine today and that they will continue to face organized medicine until some segment of organized medicine directs its attention to these questions and adequately answers them. These questions are (1) What Is a Doctor Worth?, (2) How Should a Patient Pay for Medical Care? and (3) How Should the Physician be Reimbursed for His Functions? Dr. Froelich stated that he did not want any official action on this, but he feels that the Council members should think about this.

Dr. Peterson stated that if anyone has anything they want the AMA Delegates to take to the AMA Meeting, please

contact one of the delegates in the near future. Dr. Peterson stated that if anyone is going to Dallas whom he does not know about, please let him know since the delegates can use all the help they can get.

Dr. Peterson indicated that earlier in the meeting, it was suggested that the AMA reestablish its Department of Field Service to provide closer liaison with the state associations. He suggested that a resolution regarding this Field Service be written and submitted to the AMA for inclusion in the Delegate's Handbook. The Chairman asked that Dr. Peterson provide such a resolution.

REPORTS OF THE DEANS

Dr. William Stoneman, St. Louis University, reported on several items of interest to the Council regarding establishment of new facilities and new appointments at the School of Medicine.

Dr. Stoneman indicated that the University is quite concerned about the upcoming health manpower legislation and the effect it might have on the School's financial situation.

Dr. William C. Allen, University of Missouri-Columbia, reported on Dr. White's candidacy for reelection to the AMA Council on Medical Education. He indicated that if Dr. White is reelected, he is in line for the chairmanship.

Dr. Allen reported that Dr. William D. Mayer, former Dean of the University of Missouri-Columbia School of Medicine, has accepted a position with the Veterans Administration in Washington, D. C. effective September 1. His new title will be Assistant Chief Medical Director for Academic Affairs.

Dr. Allen also expressed the concern the University has about the new health manpower legislation.

He reported that a large percentage of the University's medical school graduates are going into primary care specialties.

Planning is continuing at the University of Missouri-Columbia for a new School of Nursing since it is definitely needed.

Dr. Allen distributed a pamphlet, letter and questionnaire concerning the Howard A. Rusk Rehabilitation Center and asked the Council's permission to send them to the neurosurgeons and orthopedic surgeons in Missouri. On motion, duly seconded, permission was granted.

REPORTS OF THE COUNCILORS

District # 10—Dr. Hansbrough reported that there are problems with the HSA in his area. Dr. Hansbrough stated that the AMA is to be congratulated for its efforts in regard to HSAs and that he is pleased to see them join in the legal suit in North Carolina regarding the HSA law.

District # 7—Dr. McCanse reported that a law suit had been filed in his area in regard to the JSA in that area. The law suit should be decided sometime in early June.

Dr. McCanse stated that an HMO will be started in the southern part of Kansas City in November. The new HMO has a well-populated service area and has received a federal funding grant. The HMO primarily will be marketed to labor and business organizations. A building is being built and ambulatory care will be emphasized.

Dr. McCanse reported that the Republican Convention will be held in Kansas City in August and the County Medical Society will cooperate to provide health coverage.

Dr. McCanse stated that at the last meeting of the Jackson County Medical Society Council, unified membership was discussed. The Jackson County Council asked that Dr. McCanse encourage the Council of the MSMA to take a leadership position in attempting to do whatever is necessary to educate MSMA members as to the benefits of unified membership. Dr. McCanse stated that he feels that each

Council member should take it upon himself to do some lobbying for unified membership.

Dr. McCanse indicated that he, personally, is involved in a political organization in Jackson County and urged all Council members who are not involved in a political organization to become involved in such.

Dr. Franklin reported that Dr. Charles Wheeler will speak to a group of state Presidents, Presidents-Elect and Immediate Past-Presidents during the AMA meeting in Dallas in June.

District # 6—Dr. Torontow reported that there have been some complaints about the State Welfare system in his area.

District # 8—Dr. German indicated that he had no report at this time.

District # 9—Dr. Cooper stated that he feels that every MSMA member should get involved in politics, both vocally and financially.

District # 5—Dr. Ekern reported that the Mid-Mo CHP organization is now in an inactive status. Dr. Ekern stated that he is glad that the MSMA will have Mr. David Carr joining the staff on June 1.

District # 3—Dr. Judd reported that Mr. Bob Haswell of Medical Defense Associates, Ltd., Springfield, made a presentation to the St. Louis Medical Society Council.

District # 4—Dr. Hetlage reported that during his Councilor District Conference, concern about CME was expressed. Some of the physicians in his area are concerned that re-licensure might be forced upon physicians if the voluntary programs prove inadequate. Dr. Hetlage indicated that, perhaps, the Commission on Continuing Medical Education should give some consideration to this. Dr. Hetlage thanked Mr. Don Wilson for being present at his Conference and for providing some information on CME.

The problem of incompetency of some physicians also was discussed during the 4th Councilor District Conference. Dr. Hetlage indicated that, perhaps, some means of dealing with this problem should be developed at the local hospital staff- and local county medical society-level before submitting it to the Board of Healing Arts. Dr. Hetlage stated that he feels very strongly that in such a situation, the MSMA Council should continually review an action of the local society.

Dr. Hetlage stated that he would like to present a resolution regarding health care insurance and that he would like for this resolution to be introduced into the AMA at its June meeting. Chairman Martin stated that he felt that this resolution should not be presented at this time due to the fact that Councilors did not have copies of this resolution prior to the meeting. Dr. Hetlage stated that he would not introduce the resolution at this time, but he will see that each Councilor receives a copy of the resolution and will introduce it at the September meeting.

Dr. Hetlage stated that Missouri is one of the few areas left in the country in which a doctor does not have to do an internship before getting a license to practice medicine in the state, and he indicated that he feels that, perhaps, the state board should give some consideration to a change in this situation.

District # 1—Dr. Martin reported that there had been discussion in his area on the manpower bill and that there was strong opposition to the segment of the bill dealing with relicensure. He indicated that his local medical society had gone on record as opposing it.

SWINE FLU VACCINATION PROGRAM

Dr. Domke reported on a coordinating committee composed of Dr. Chandler from the MSMA, Dr. Voss from the

(Continued on page 289)

Before prescribing, please consult complete product information, a summary of which follows:

Indications: In adults, urinary tract infections complicated by pain (primarily pyelonephritis, pyelitis and cystitis) due to susceptible organisms (usually *E. coli*, *Klebsiella-Aerobacter*, *Staphylococcus aureus*, *Proteus mirabilis*, and, less frequently, *Proteus vulgaris*) in the absence of obstructive uropathy or foreign bodies.

Note: Carefully coordinate *in vitro* sulfonamide sensitivity tests with bacteriologic and clinical response; add aminobenzoic acid to follow-up culture media. The increasing frequency of resistant organisms limits the usefulness of antibacterials including sulfonamides. Measure sulfonamide blood levels as variations may occur; 20 mg/100 ml should be maximum total level.

Contraindications: Children below age 12; sulfonamide hypersensitivity; pregnancy at term and during nursing period; because Azo Gantanol contains phenazopyridine hydrochloride it is contraindicated in glomerulonephritis, severe hepatitis, uremia, and pyelonephritis of pregnancy with G.I. disturbances.

Warnings: Safety during pregnancy not established. Deaths from hypersensitivity reactions, agranulocytosis, aplastic anemia and other blood dyscrasias have been reported and early clinical signs (sore throat, fever, pallor, purpura or jaundice) may indicate serious blood disorders. Frequent CBC and urinalysis with microscopic examination are recommended during sulfonamide therapy.

Precautions: Use cautiously in patients with impaired renal or hepatic function, severe allergy, bronchial asthma; in glucose-6-phosphate dehydrogenase-deficient individuals in whom dose-related hemolysis may occur. Maintain adequate fluid intake to prevent crystalluria and stone formation.

Adverse Reactions: *Blood dyscrasias* (agranulocytosis, aplastic anemia, thrombocytopenia, leukopenia, hemolytic anemia, purpura, hypoprothrombinemia and methemoglobinemia); *allergic reactions* (erythema multiforme, skin eruptions, Stevens-Johnson syndrome, epidermal necrolysis, urticaria, serum sickness, pruritus, exfoliative dermatitis, anaphylactoid reactions, periorbital edema, conjunctival and scleral injection, photosensitization, arthralgia and allergic myocarditis); *G.I. reactions* (nausea, emesis, abdominal pains, hepatitis, diarrhea, anorexia, pancreatitis and stomatitis); *CNS reactions* (headache, peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo and insomnia); *miscellaneous reactions* (drug fever, chills, toxic nephrosis with oliguria and anuria, periarthritis nodosa and L.E. phenomenon). Due to certain chemical similarities with some goitrogens, diuretics (acetazolamide, thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia. Cross-sensitivity with these agents may exist.

Dosage: Azo Gantanol is intended for the acute, painful phase of urinary tract infections. *Usual adult dosage:* 2 Gm (4 tabs) initially, then 1 Gm (2 tabs) B.I.D. for up to 3 days. If pain persists, causes other than infection should be sought. After relief of pain has been obtained, continued treatment with Gantanol (sulfamethoxazole) may be considered.

NOTE: Patients should be told that the orange-red dye (phenazopyridine HCl) will color the urine.

Supplied: Tablets, red, film-coated, each containing 0.5 Gm sulfamethoxazole and 100 mg phenazopyridine HCl—bottles of 100 and 500.



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Division of Hoffmann-La Roche Inc.
Nutley, New Jersey 07110

**When pain
complicates acute cystitis***

Azo Gantanol[®]

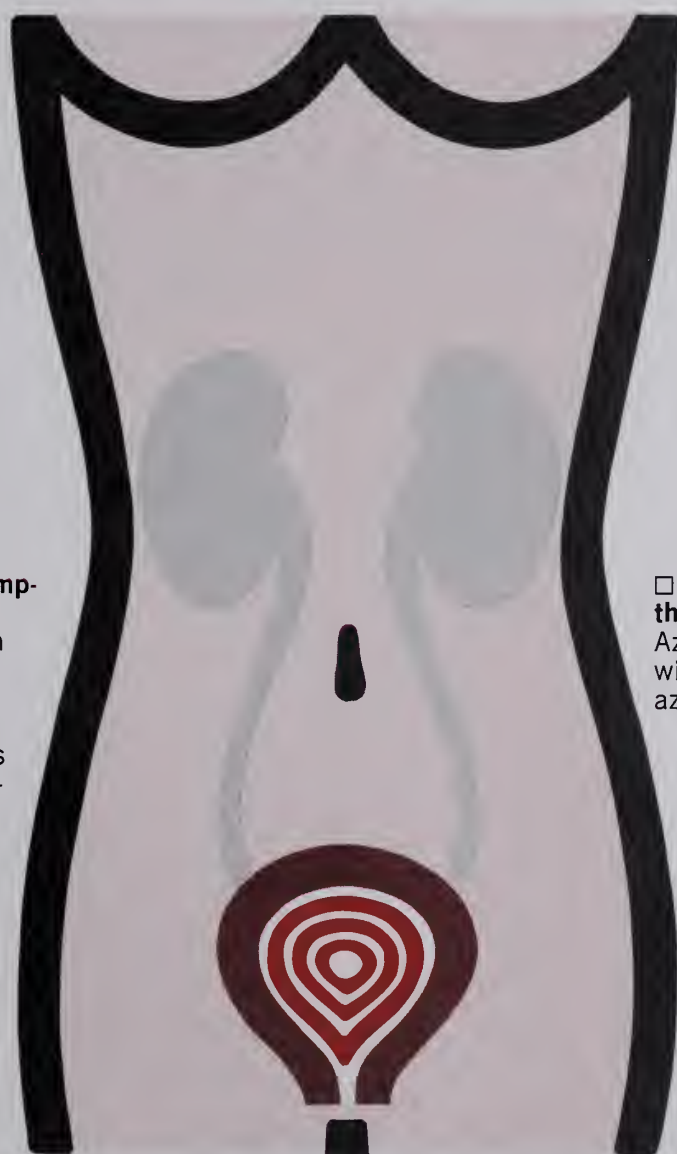
Each tablet contains 0.5 Gm sulfamethoxazole and 100 mg phenazopyridine HCl.

for the pain for the pathogens

☐ **Early relief of painful symptoms** such as burning and discomfort associated with urgency and frequency.

☐ **Effective control of susceptible pathogens** such as *E. coli*, *Klebsiella-Aerobacter*, *Staph. aureus*, *Proteus mirabilis* and, less frequently, *Proteus vulgaris*.

☐ **Appropriate antibacterial therapy:** up to three days with Azo Gantanol, then 11 days with Gantanol[®] (sulfamethoxazole).



*nonobstructed; due to susceptible organisms

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® Each capsule contains 50 mg. of Dyrenium® (triamterene, SK&F) and 25 mg. of hydrochlorothiazide.

**TRIAMTERENE CONSERVES POTASSIUM
WHILE HYDROCHLOROTHIAZIDE
LOWERS BLOOD PRESSURE**

**FOR LONG-TERM CONTROL
OF HYPERTENSION***

Serum K⁺ and BUN should be checked periodically. (See Warnings Section.)



Before prescribing, see complete prescribing information in SK&F literature or PDR. The following is a brief summary.

*** Warning**

This fixed combination drug is not indicated for initial therapy of edema or hypertension. Edema or hypertension requires therapy titrated to the individual patient. If the fixed combination represents the dosage so determined, its use may be more convenient in patient management. The treatment of hypertension and edema is not static, but must be reevaluated as conditions in each patient warrant.

*** Indications:** *Edema:* That associated with congestive heart failure, cirrhosis of the liver, the nephrotic syndrome; steroid-induced and idiopathic edema; edema resistant to other diuretic therapy. *Mild to moderate hypertension:* Usefulness of the triamterene component is limited to its potassium-sparing effect.

Contraindications: Pre-existing elevated serum potassium. Hypersensitivity to either component. Continued use in progressive renal or hepatic dysfunction or developing hyperkalemia.

Warnings: Do not use dietary potassium supplements or potassium salts unless hypokalemia develops or dietary potassium intake is markedly impaired. Enteric-coated potassium salts may cause small bowel stenosis with or without ulceration. Hyperkalemia (>5.4 mEq/L) has

been reported in 4% of patients under 60 years, in 12% of patients over 60 years, and in less than 8% of patients overall. Rarely, cases have been associated with cardiac irregularities. Accordingly, check serum potassium during therapy, particularly in patients with suspected or confirmed renal insufficiency (e.g., elderly or diabetics). If hyperkalemia develops, substitute a thiazide alone. If spironolactone is used concomitantly with 'Dyazide', check serum potassium frequently—both can cause potassium retention and sometimes hyperkalemia. Two deaths have been reported in patients on such combined therapy (in one, recommended dosage was exceeded; in the other, serum electrolytes were not properly monitored). Observe patients on 'Dyazide' regularly for possible blood dyscrasias, liver damage or other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving Dyrenium (triamterene, SK&F). Rarely, leukopenia, thrombocytopenia, agranulocytosis, and aplastic anemia have been reported with the thiazides. Watch for signs of impending coma in acutely ill cirrhotics. Thiazides are reported to cross the placental barrier and appear in breast milk. This may result in fetal or neonatal hyperbilirubinemia, thrombocytopenia, altered carbohydrate metabolism and possibly other adverse reactions that have occurred in the adult. When used during pregnancy or in women who might bear children, weigh potential benefits against possible hazards to fetus.

Precautions: Do periodic serum electrolyte and

BUN determinations. Do periodic hematologic studies in cirrhotics with splenomegaly. Anti-hypertensive effects may be enhanced in post-sympathectomy patients. The following may occur: hyperuricemia and gout, reversible nitrogen retention, decreasing alkali reserve with possible metabolic acidosis, hyperglycemia and glycosuria (diabetic insulin requirements may be altered), digitalis intoxication (in hypokalemia). Use cautiously in surgical patients. Concomitant use with antihypertensive agents may result in an additive hypotensive effect. 'Dyazide' interferes with fluorescent measurement of quinidine.

Adverse Reactions: Muscle cramps, weakness, dizziness, headache, dry mouth; anaphylaxis; rash, urticaria, photosensitivity, purpura, other dermatological conditions; nausea and vomiting (may indicate electrolyte imbalance), diarrhea, constipation, other gastrointestinal disturbances. Necrotizing vasculitis, paresthesias, icterus, pancreatitis, xanthopsia and, rarely, allergic pneumonitis have occurred with thiazides alone.

Supplied: Bottles of 100 capsules; in Single Unit Packages of 100 (intended for institutional use only).

SK&F Co., Carolina, P.R. 00630
Subsidiary of SmithKline Corporation

Upjohn

The Upjohn Company, Kalamazoo, Michigan 49001

Medrol[®] 4 mg Dosepak^{*}

methyprednisolone, Upjohn

The explicit printed dosage instructions that accompany each Dosepak make it easy for the patient to understand and follow the dosage regimen.





Natural balance doesn't always come naturally

Big Balanced Rock, Chiricahua Mountains, Arizona (approx. 1,000 tons)

- Found useful in the management of vertigo* associated with diseases affecting the vestibular system.
- Can relieve nausea and vomiting often associated with vertigo.*
- Usual adult dosage for Antivert/25 for vertigo:* one tablet t.i.d.
- Also available as Antivert (meclizine HCl) 12.5 mg. scored tablets, for dosage convenience and flexibility.
- Antivert/25 (meclizine HCl) 25 mg. *Chewable* Tablets for nausea, vomiting and dizziness associated with motion sickness.

BRIEF SUMMARY OF PRESCRIBING INFORMATION

*INDICATIONS. Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows:

Effective: Management of nausea and vomiting and dizziness associated with motion sickness.

Possibly Effective: Management of vertigo associated with diseases affecting the vestibular system.

Final classification of the less than effective indications requires further investigation.

CONTRAINDICATIONS. Administration of Antivert (meclizine HCl) during pregnancy or to women who may become pregnant is contraindicated in view of the teratogenic effect of the drug in rats.

The administration of medicine to pregnant rats during the 12-15 day of gestation has produced cleft palate in the offspring. Limited studies using doses of over 100 mg/kg/day in rabbits and 10 mg/kg/day in pigs and monkeys did not show cleft palate. Congeners of meclizine have caused cleft palate in species other than the rat.

Meclizine HCl is contraindicated in individuals who have shown a previous hypersensitivity to it.

WARNINGS. Since drowsiness may, on occasion, occur with use of this drug, patients should be warned of this possibility and cautioned against driving a car or operating dangerous machinery.

Usage in Children: Clinical studies establishing safety and effectiveness in children have not been done; therefore, usage is not recommended in the pediatric age group.

Usage in Pregnancy: See "Contraindications."

ADVERSE REACTIONS. Drowsiness, dry mouth and, on rare occasions, blurred vision have been reported.

More detailed professional information available on request.

ROERIG *Pfizer*
A division of Pfizer Pharmaceuticals
New York, New York 10017

Antivert[®]/25 (meclizine HCl) 25 mg. Tablets for vertigo*

Osteopathic Association, Mrs. England from the Nurses Association and Mr. Dauner from the Hospital Association to help set up a swine flu vaccination program. Dr. Domke pointed out that it is expected that the majority of people will receive their vaccinations from their regular physicians. It is hoped that the Division of Health can supply the vaccine to hospitals which, in turn, will dispense the vaccine to physicians. Hospital staff meetings probably will be used as information sources for providing background information on the vaccine.

Dr. Domke reported that questions have been raised on the national level in regard to the liability involved for physicians administering the vaccine. The Coordinating Committee feels that the legal counsels of the sponsoring organizations should meet and discuss this liability problem with the Missouri Attorney General. Dr. Domke stated that the bivalent vaccine will be available on July 15 for the high-risk and chronically-ill groups and that the monovalent vaccine should be ready by the end of August. Dr. Domke indicated that the Division of Health has applied for federal money that would be available and that this money would be used to buy the necessary supplies (syringes, alcohol, etc.) and, also, to provide money for a few staff members who will be used in an education program about the vaccine. The vaccine will be furnished free by the Federal Government through the HEW.

During discussion on this matter, a question was raised as to whether or not physicians will have to indicate on their office records whether or not they have given the vaccine. Dr. Domke stated that this will not be necessary, but that a form will be provided by the Division of Health whereby a physician will have to account for the vaccine that he has received and then return the form to the Division of Health. Dr. Domke also pointed out that various volunteer organizations (Woman's Auxiliary, PTA, etc.) had indicated their willingness to be of assistance in this program.

Dr. Chandler stated that it is the feeling of the Coordinating Committee that the vaccine can be distributed to the seven Division of Health Districts in the state and be distributed from there to hospitals and physicians. He indicated that the organizations on the coordinating committee are ready to cooperate on this program and volunteer groups can take care of the paper work involved in this program.

Dr. Hansbrough moved that the MSMA indicates its willingness to cooperate in this swine flu vaccination program. Motion was seconded by Dr. Chandler and carried.

A motion was made to ask our legal counsel to meet with the legal counsels of the other organizations and the Attorney General to discuss the liability aspect of this program. The motion was seconded and carried.

Dr. Domke stated that he would like the Council endorsement of the establishment of local county health units in those areas of the state that do not have them.

Motion to endorse this plan was made, seconded and carried.

REPORT OF THE LEGISLATIVE COMMITTEE

Dr. Matthews brought the Council up-to-date on the various bills that were introduced and passed during the recent General Assembly and reported that three fourths of the bills supported by MSMA did pass the Assembly. The following bills dealing with professional liability passed:

Senate Bill 470—Lowers the age limit in the Statute of Limitations dealing with minors. We originally asked that a minor eight years old come under the adult statutes, but had to compromise with age 12. This still represents an 11-year reduction from the present Statutes. The bill contains a provision for "two years from discovery" for foreign objects negligently left in the body with a limit of 10 years.

Senate Bill 471—Establishes a system of review panels to consider malpractice suits *before* they go to court. The panel will be composed of two physicians, one must be of the same specialty as the defendant, two attorneys, a layman and a non-voting circuit judge.

Senate Bill 472—Gives added power to the Board of Healing Arts by allowing the Board to suspend or revoke a physician's license for reasons of medical incompetency or by use of treatments that are contrary to medical standards or the consistent utilization of services which are medically inappropriate. The Board could compel a physician to submit to a medical competency re-examination.

House Bill 1307—Is the only malpractice bill signed by the Governor at this time. It provides that a claimant cannot ask for a specific amount in a malpractice suit, but rather, "fair and reasonable" compensation.

House Bill 1308—Requires that insurance companies report all medical malpractice claims to the Missouri Division of Insurance.

House Bill 1309—Places enabling legislation on the books for possible establishment of a Joint Underwriting Association.

The bills which were not passed were HB 1306 (Informed Consent) and HB 1312 (Collateral Sources). HB 1447 (Contingency Fees) was not a part of our original package, however, it did not pass.

Several other bills affecting the medical profession were passed this session. They were SB 667, which allows podiatrists to do amputation of the toes, but prohibits them from working on infants under one year of age, and SB 572, which allows oral surgeons to do physical workups on patients they have admitted to a hospital.

The following bills, which the MSMA opposed, failed to gain passage: HB 975 (Acupuncture), HB 1408 (Generic Prescribing), SB 549 (Require official Prescription Forms issued by State), SB 829 (Dropping Requirement that Director of Mental Health be a physician) and SB 682 (Certificate of Need).

Dr. Matthews thanked the Council, Auxiliary, physicians and wives and MSMA staff for the tremendous job they did in the past session of the General Assembly.

Dr. Martin asked Dr. Domke to please keep the MSMA informed in regard to any developments in the Swine Flu Immunization Program.

PSRO

The Chairman indicated that a report from the Missouri PSRO Support Center was in the Council folders for their information. Dr. Franklin indicated that he had spoken to Dr. Clem Grebel and he is doing just fine. He stated that Dr. Grebel also indicated that the State PSRO Support Center, of which he is Chairman, will not be funded after September as far as he knows, and he needs some direction as to the future of the Support Center. Dr. Martin stated that, possibly, this should be turned over to a commission for study.

MSMA INTERIM SESSION

The Council, in conjunction with Dr. James T. Brown, Speaker of the MSMA House of Delegates, set the dates of Wednesday and Thursday, November 3 and 4, for the MSMA Interim Session to be held at Tan-Tar-A at the Lake of the Ozarks. Resolutions to be introduced at this Session must deal with state or federal legislation and must be in the Headquarters Office no later than 20 days prior to the Session. This would be October 13, 1976. The Speaker of the House, along with the Legislative Committee, will review the proposed resolutions and decide as to whether or not they conform to the above. The session will be open to the

entire membership of the MSMA and informational material concerning the session will be mailed in the near future.

NEXT COUNCIL MEETING

Dr. McAlhany invited the Council to hold its next meeting at Howard Johnson's in Springfield on September 24 and 25. The invitation was accepted.

EXECUTIVE SESSION

The Council held an Executive Session on Friday evening, May 21. Information given to the Council was that the Government Auditing Office in the Kansas City Regional Office was doing a spot survey on Missouri's Medicaid Program in five Missouri counties (Butler, Dallas, Clay, Platte, Jackson) during the month of June.

The Council approved a request for mailing out in a general mailing to MSMA members a special Medicaid questionnaire which would relay the feelings of the physicians in Missouri toward the Medicaid Program. The Council is requesting that the results of this GAO survey be made available to the MSMA.

Dr. Max Franklin presented a resolution to the Council regarding Blue Cross of St. Louis. Following considerable discussion on this resolution, the Council voted its approval. A copy of the resolution is as follows:

Resolution Re: Missouri State Medical Association Official Recognition of Blue Cross

WHEREAS, The Blue Cross Plan of St. Louis Inc., has changed its constitution and bylaws, limiting the number of physicians on the Corporate Board, and

WHEREAS, In the past, Blue Cross has asked the various County Medical Societies to select their representatives to the Corporate Board, and

WHEREAS, The St. Louis Medical Society at one time had 36 such representatives, later decreased to 24, then 16 and now none, and

WHEREAS, The number of physician representatives has also decreased throughout the area served by the Blue Cross Hospital Plan of Missouri, Inc., which is the Blue Cross Plan of St. Louis, and

WHEREAS, The Blue Cross has rather preemptorily requested the President of MSMA to supply 24 names of physicians scattered about the area served by the St. Louis Blue Cross of which Blue Cross will then select eight names to serve on the Corporate Board, and

WHEREAS, There are now two physicians on the Board of Trustees who were not selected by any component of organized medicine, and do not officially represent organized medicine, and

WHEREAS, If MSMA justifiably refuses to furnish such a list, Blue Cross will undoubtedly select its own list, therefore, be it

Resolved, That the MSMA refuses to furnish a list of names believing those names should be selected by the various County Medical Societies since the St. Louis Blue Cross only serves part of this State, and further be it

Resolved, That the physicians selected by Blue Cross for the Corporate Board also be notified that they do not officially represent organized medicine, and he it further

Resolved, That the MSMA withdraws from any concept of official recognition of Blue Cross, and, further, be it

Resolved, That copies of this resolution be sent to the Blue Cross Plan of Missouri, Inc. and to the Superintendent of Insurance of Missouri and to the Governor of Missouri and to all the County Societies of Missouri served by this Blue Cross Plan and to the Missouri Hospital Association and the St. Louis Hospital Association.

Missouri Physicians Asked to Contact Handicapped Persons

The Task Force Committee of the Missouri White House Conference on Handicapped Individuals has announced that five regional conferences will be held in Missouri. Locations for the conferences will be Springfield, Kansas City, Columbia, St. Louis and Poplar Bluff. Specific dates will be announced this month.

Harold Kuehle, state director of activities, has stated that for the Missouri conferences to be successful, every handicapped individual must be made aware of the White House Conference and the regional meetings and be asked to participate either in person or by letter, stating the problems they face. They also are asked to give their recommendations on what action the local, state and federal governmental bodies can take to help solve their problems.

The Task Force Committee has requested the cooperation and assistance of all physicians in contacting all handicapped individuals known to them

and, also, notifying the Committee of individuals interested in attending the conferences.

Limited funds will be available for some individuals who must travel long distances or who might be unable to attend a conference otherwise.

To request brochures on the conferences or to secure more information, physicians are asked to call the appropriate regional chairman. They are Dr. Larry Baker, St. Louis, (314) 453-5881; Ms. Betty Dubansky, Columbia, (314) 442-0346; Mrs. Mariona Henshaw, Springfield, (417) 883-2700; Jim Matthews, Springfield, (417) 883-7211; Norman Wensky, Poplar Bluff, (314) 335-7977; and Bruce Scott, Kansas City, (816) 452-1493.

Kuehle added that it is important that he be notified of handicapped individuals and parents who are interested in participating in the conferences as soon as possible. Write to Harold D. Kuehle, P.O. Box 59, Jefferson City 65101 or call (314) 751-3216-Ext. 296.

"Without your help



*... I simply
would not have
made it through
medical school!"*

(The following letter was received from a physician who, as a student, received financial assistance from the Missouri State Medical Association members who have contributed to the Missouri State Medical Foundation. It is printed with his permission.)

Dear Doctor:

"Thank you very much for your thoughtful letter concerning receipt of my final payment on my medical student loan.

"I can well remember the feeling of destitution associated with being a reasonably good student but lacking funds with which to enroll for the next semester in medical school. Having always been, perhaps, more than adequately endowed with pride, it was a lesson in discipline and humility to go seeking financial assistance. However, the effort brought me in contact with some very nice people who really do a lot to keep one's faith in human nature alive.

"I sincerely appreciate the efforts which you and others put into the Missouri State Medical Foundation and all other student loan funds. You should feel a quiet heroism for the assistance you lend to needy students . . . without your help, I simply would not have made it through medical school."

The Missouri State Medical Foundation—MSMF—was created by the Missouri State Medical Association for the express purpose of giving financial assistance to deserving young Missourians who will be tomorrow's doctors.

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Missouri Medicine in Review



FORTY YEARS AGO

Dr. Dudley Steele Conley, Columbia, was selected as President-Elect of the Missouri State Medical Association by the House of Delegates at the Columbia Annual Session on April 13-15. He will be installed as President at the next Session in Cape Girardeau in 1937. Dr. Conley was instructor in surgery at Columbia University from 1912 to 1918 and instructor in surgery at the Postgraduate Medical School in New York from 1916 to 1918. In 1919, he became professor of surgery at the University of Missouri in Columbia. He became dean of the School of Medicine in 1933 and now holds that position. He is director of the University hospitals and director of surgical services in these hospitals.

Dr. Morris Fishbein of Chicago, editor of *The Journal of the American Medical Association*, spoke on "Medicine and the Changing Social Order" at the Liberal Forum of the YMHA in St. Louis on May 17.

Of approximately 6 million persons on relief in this country, there are only about 50 physicians and surgeons, according to a survey made recently by the Kny-Scheerer Corporation, Long Island City, N. Y. The survey disclosed that there are 1,000 lawyers, 3,000 ministers and religious workers and more than 20,000 teachers on relief rolls.

The Kansas City session of the American Medical Association was successful as a scientific meeting, in executive affairs accomplished by the House of Delegates and in recreation. The only mar to the Session was the severe illness of the President-Elect, Dr. J. Tate Mason of Seattle, Wash., who was unable to attend the meeting. Dr. J. H. J. Upham of Columbus, Ohio was elected President-Elect. Dr. Charles Gordon Heyd, New York, was elected Vice-President. Dr. Olin West, Chicago was

reelected Secretary and Dr. Herman L. Kretschmer, Chicago, was reelected Treasurer.

Deaths from diphtheria decreased 37% in St. Louis in 1935 and the number of cases 31%. In spite of the large decrease in 1935, there were 665 persons who contracted diphtheria, twenty-four of whom died.

Specialists in nervous and mental diseases will convene at the 92nd Annual Meeting of the American Psychiatric Association in St. Louis on May 4-8 with headquarters at the Hotel Jefferson. Dr. George A. Johns, St. Louis, is chairman of the committee on arrangements.

The meeting will be formally opened on Tuesday by the president, Dr. Clarence O. Cheney of New York. Addresses of welcome will be given on Wednesday evening by Dr. Lee D. Cady, Dr. W. McKim Marriott and Rev. Father Alphonse M. Schwitalla, S.J., of St. Louis.

The annual address will be given by C. Judson Herrick, Ph.D., Professor Emeritus, University of Chicago, on "Control of Behavior: Its Mechanism and Evolution."

The American Psychiatric Association was founded by Benjamin Rush in 1844 and now has approximately 1,800 members in the United States and Canada.

TWENTY-FIVE YEARS AGO

The 93rd Annual Session of the MSMA closed with a meeting of the Council on April 25 at the Municipal Auditorium in Kansas City. Total attendance was approximately 1,210 with 718 doctors of medicine registered. Association officers who were elected were President-Elect, J. W. Thompson, M.D., St. Louis; Vice-Presidents, Otto W. Koch, M.D., Clayton, A. P. Rowlette, M.D., Moberly, and Rollin H. Smith, M.D., West Plains; Secretary, H. E. Petersen, M.D., St. Joseph; and Treasurer, C. E. Hyndman, M.D., St. Louis. Dr. C. Edgar Virden, M.D., Kansas City, was installed as President. Ralph R. Coffey, M.D., Kansas City, was in charge of arranging the television presentations.

Dr. Thompson, who will be installed as President at the next MSMA Annual Session, completed his college work at Washington University in St. Louis and received his medical degree from the Washington University School of Medicine in 1923. After an internship at St. Luke's Hospital, he was accept-

ed on a surgical fellowship at the Mayo Foundation in Rochester, Minn., where he was first assistant to Waltman Walters, M.D., head of a surgical section. Dr. Thompson also worked with both William J. and Charles H. Mayo.

Claude Duckette, M.D., Lamar, was elected Barton County Representative to the Missouri Legislature at a special election on April 11.

Drs. Harry B. Stauffer of Jefferson City, Winfred L. Post of Joplin, Ernest T. Rouse and Theodore E. Walsh of St. Louis were guest instructors at a post-graduate course in ophthalmology and otolaryngology at the University of Kansas Medical Center in Kansas City, Kan. on April 16-20.

Dr. J. J. Barber, Walnut Grove, was guest of honor at "Dr. Barber Night" held by the Walnut Grove Lions Club on April 12 following his announcement of retirement from medical practice.

The Perry County Memorial Hospital in Perryville opened officially at 9 AM on April 16. This is the second hospital built under the provisions of the federal Hill-Burton Act to be opened in Missouri. For the construction of this hospital, the voters of Perry County passed a bond issue for \$250,000 in 1946. With this amount and federal funds totalling \$125,000, the 50-bed institution was in the making.

David Littauer, M.D., Kansas City, was elected first vice-president of the Midwest Hospital Association on April 12.

Dr. Robert S. Minton, St. Joseph, and Dr. Walter L. Brandon, Poplar Bluff, were appointed to the State Advisory Council on March 26. The Council acts in an advisory capacity on applications for federal aid to build or expand hospitals of health centers.

Edward D. James, M.D., Joplin, was presented with gifts by the Jasper County Medical Society at a recent meeting on March 13 in honor of his 80th birthday.

TEN YEARS AGO

Forty-two physicians attended the April 6 meeting of the Buchanan County Medical Society at the Hotel Robidoux. Reports on the 108th MSMA Annual Session on March 27-30 in Kansas City were made by the Delegates, who were Dr. John N. Martin and Dr. Ernest E. Wadlow. Dr. William Redmond, President, presided at the meeting and program.

Dr. James M. A. Weiss, professor and chairman of the psychiatry department at the University of Missouri, has been elected president of the newly

formed Missouri Academy of Psychiatry. This is the first statewide organization of psychiatrists to be formed in Missouri. Other officers are Dr. Retus W. Osborn III, Farmington, President-Elect; Dr. James N. Haddock, Clayton, Secretary-Treasurer; Dr. Manson B. Pettit, St. Joseph, Councilor (1967); and Dr. George J. Lytton, Kansas City, Councilor (1968).

Dr. Carl J. Dreyer has been elected president of the St. Louis Gynecological Society.

Dr. Henry Schwartz has been named President-Elect of the Harvey Cushing Society. Dr. Schwartz is Professor of Neurological Surgery and acting head of the Department of Surgery, Washington University School of Medicine.

The Mineral Area County Medical Society held its regular monthly meeting on February 24 at the usual meeting place in the Hoctor Building of the State Hospital in Farmington. Dr. C. C. Chastain called the meeting to order at 8 PM.

The development of the first effective experimental vaccine against rubella by two scientists of the Public Health Service's National Institutes of Health has been announced by the developers of the vaccine, Dr. Harry M. Meyer, Jr. and Dr. Paul D. Parkman, both of the division of Biologics Standards, to their scientific colleagues at the recent Atlantic City meeting of the American Pediatrics Society.

Two major appointments at the St. Louis University Medical Center have been announced. Dr. Ernest N. Boettcher, associate executive director of the Hartford Hospital has been named director of the St. Louis University Hospitals. He succeeds John B. Warner, Jr., who has resigned to establish a hospital consulting firm. Dr. Frederick G. Germuth, Jr., director of Laboratories and pathologist-in-chief at Aultman Hospital in Canton, Ohio, has been appointed chairman of the Department of Pathology at the School of Medicine. He will succeed Dr. Henry Pinkerton who has been named Professor and Director Emeritus of the Department.

Dr. Robert J. Terry, Emeritus Professor of Anatomy at Washington University School of Medicine, died on April 18 in Weston, Mass. He was born in St. Louis, was 95 years old and was the oldest living faculty member of the School of Medicine.

Checks totaling more than \$37,500 have been presented to Missouri's three medical schools by the American Medical Association Education and Research Foundation (AMA-ERF).

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UNIVERSITY HEALTH SERVICE—Southwest Missouri State University seeking additional full-time physician (FP or GP). New clinic facility and hospital. 12,000 students and growing. Excellent fringe benefits, outdoor recreation and time to enjoy, plus mild climate. Write: R. L. Bartley, M.D., Director, Taylor Health Center, Southwest Missouri State University, Springfield, Missouri 65802.

PHYSICIAN WANTED—Group practice has immediate need for a qualified internist. Well established practice offering excellent opportunity. Good hospital affiliations and completely equipped office in Kansas City, Mo. Additional details given upon request. Reply to Box 415, MISSOURI MEDICINE, 113 Madison, Jefferson City, Mo. 65101.

SITUATION WANTED—M.D., Washington University graduate, is retiring early as Vice-President of large Blue Cross Plan. Experience includes private practice, industrial and administrative medicine. Moving to St. Louis area in the fall. Desires full or part-time position, Missouri license. Reply to Box 416, MISSOURI MEDICINE, 113 Madison, Jefferson City, Mo. 65101.

PHYSICIAN (PSYCHIATRIC) WANTED—For 180-bed psychiatric hospital in Southwestern Missouri. Pleasant rural

setting with easy access to metropolitan areas, lake areas and various recreational facilities. Employment is through State Merit System with competitive salary and liberal fringe benefits. Contact Superintendent, Nevada State Hospital, Nevada, Missouri 64772.

PSYCHIATRIST—Immediate opening. To work as staff psychiatrist under Board Certified Medical Director in small CMHC affiliated with private hospital. Lovely university city of 35,000. Outdoor recreational facilities within driving distance. Excellent professional staff. Salary approximately \$40,000 depending upon experience and if Board Certified or eligible. Inquire: Louis E. Masterman, Administrative Director, St. Francis Community Mental Health Center, 825 Good Hope, Cape Girardeau, Mo. 63701 or call collect, 314-334-3854.

X-RAY MACHINE—Pickar-200 MA, counterpoised, ceiling mount, eight years old, very good condition, appraised price, \$8,000. Write to Box 413, MISSOURI MEDICINE, 113 Madison, Jefferson City, Mo. 65101.

SITUATIONS WANTED—Available. General surgeon, 39, passed part one of Surgery Board. Desires partnership, group practice or solo practice. Willing to do some general practice. Reply to Box 414, MISSOURI MEDICINE, 113 Madison, Jefferson City, Mo. 65101.

INTERNIST & FAMILY PRACTITIONER—To join 11-man multi-specialty group; city of 20,000 with a population draw of 60,000. Incorporated, offering excellent salary, fringe benefits and retirement plan. Liberal vacation and study policy. Opportunity to pursue special interest in this practice setting. Clinic presently expanding facilities and is in proximity of Hannibal's two accredited hospitals. Mark Twain's home town is an ideal place to raise a family. Call or write: Wyeth Hamlin, M.D., LaMoine Rapp, M.D. or Dale J. Anderson, Administrator, at (314) 221-5250, The Hannibal Clinic, Inc., 711 Grand Ave., Hannibal, Missouri 63401.

POSITION WANTED—34-year-old, ABFP certified FMG, wants to relocate practice in Missouri. Please send information or offer to Box 412, Missouri State Medical Association, P.O. Box 1208, Jefferson City, Mo. 65101.

HANLEY 14 x 17 Vertical X-Ray and Medical Record Cabinets are used in most hospitals in America.

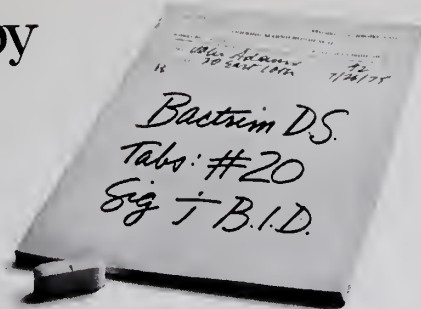
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10-day Bactrim therapy outperforms 10-day ampicillin therapy.



In a multicenter, double-blind study of patients with chronic or frequently recurrent urinary tract infection, Bactrim 10-day therapy outperformed ampicillin 10-day therapy by 27.2%, when comparing patients who maintained clear cultures for eight weeks. The criterion for "clear culture" was 1000 or fewer organisms/ml of urine.

While adverse reactions noted in this study were mild (e.g., vomiting, nausea, rash), more serious reactions can occur with these drugs. See manufacturer's product information for complete listing. Maintain adequate fluid intake; perform frequent CBC's and urinalyses with microscopic examination.

Note: Bactrim tablets were used in these clinical trials. Bioequivalency studies show one Bactrim DS double strength tablet is equivalent to two Bactrim tablets.

For chronic or frequently recurrent cystitis and pyelonephritis due to susceptible organisms.

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Chronic urinary tract infections evidenced by persistent bacteriuria (symptomatic or asymptomatic), frequently recurrent infections (relapse or reinfection), or infections associated with urinary tract complications, such as obstruction. Primarily for cystitis, pyelonephritis or pyelitis due to susceptible strains of *E. coli*, *Klebsiella pneumoniae*, *Proteus mirabilis*, *Proteus vulgaris* and *Proteus* spp.

NOTE: The increasing frequency of resistant organisms limits the usefulness of antibacterials, especially in these urinary tract infections. The recommended quantitative disc susceptibility method (*Federal Register*, 37:20527-20529, 1972) may be used to estimate bacterial susceptibility to Bactrim. A laboratory report of "Susceptible to trimethoprim-sulfamethoxazole" indicates an infection likely to respond to Bactrim therapy. If infection is confined to the urine, "Intermediate susceptibility" also indicates a likely response. "Resistant" indicates that response is unlikely.

Contraindications: Hypersensitivity to trimethoprim or sulfonamides; pregnancy; nursing mothers.

Warnings: Deaths from hypersensitivity reactions, agranulocytosis, aplastic anemia and other blood dyscrasias have been associated with sulfonamides. Experience with trimethoprim is much more limited but occasional interference with hematopoiesis has been reported as well as an increased incidence of thrombopenia with purpura in elderly patients on certain diuretics, primarily thiazides. Sore throat, fever, pallor, purpura or jaundice may be early signs of serious blood disorders. Frequent CBC's are recommended; therapy should be discontinued if a significantly reduced count of any formed blood element is noted. **Data are insufficient to recommend use in infants and children under 12.**

Precautions: Use cautiously in patients with impaired renal or hepatic function, possible folate deficiency, severe allergy or bronchial asthma. In patients with glucose-6-phosphate dehydrogenase deficiency, hemolysis, frequently dose-related, may occur. During therapy, maintain adequate fluid intake and perform frequent urinalyses, with careful microscopic examination, and renal function tests, particularly where there is impaired renal function.

Adverse Reactions: All major reactions to sulfonamides and trimethoprim are included, even if not reported with Bactrim. **Blood dyscrasias:** Agranulocytosis, aplastic anemia, megaloblastic anemia, thrombopenia, leukopenia, hemolytic anemia, purpura, hypoprothrombinemia and methemoglobinemia. **Allergic reactions:** Erythema

multiforme, Stevens-Johnson syndrome, generalized skin eruptions, epidermal necrolysis, urticaria, serum sickness, pruritus, exfoliative dermatitis, anaphylactoid reactions, periorbital edema, conjunctival and scleral injection, photosensitization, arthralgia and allergic myocarditis. **Gastrointestinal reactions:** Glossitis, stomatitis, nausea, emesis, abdominal pains, hepatitis, diarrhea and pancreatitis. **CNS reactions:** Headache, peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo, insomnia, apathy, fatigue, muscle weakness and nervousness. **Miscellaneous reactions:** Drug fever, chills, toxic nephrosis with oliguria and anuria, periarteritis nodosa and L. E. phenomenon. Due to certain chemical similarities to some goitrogens, diuretics (acetazolamide, thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia in patients; cross-sensitivity with these agents may exist. In rats, long-term therapy with sulfonamides has produced thyroid malignancies.

Dosage: Not recommended for children under 12. Usual adult dosage: 1 DS tablet (double strength), 2 tablets (single strength) or 4 teasp. (20 ml) b.i.d. for 10-14 days.

For patients with renal impairment:

Creatinine Clearance (ml/min)	Recommended Dosage Regimen
Above 30	Usual standard regimen
15-30	1 DS tablet (double strength), 2 tablets (single strength) or 4 teasp. (20 ml) every 24 hours
Below 15	Use not recommended

Supplied: Double Strength (DS) tablets, each containing 160 mg trimethoprim and 800 mg sulfamethoxazole, bottles of 100; Tel-E-Dose® packages of 100. Tablets, each containing 80 mg trimethoprim and 400 mg sulfamethoxazole—bottles of 100 and 500; Tel-E-Dose® packages of 100; Prescription Paks of 40, available singly and in trays of 10.

Oral suspension, containing in each teaspoonful (5 ml) the equivalent of 40 mg trimethoprim and 200 mg sulfamethoxazole; fruit-flavored—bottles of 16 oz (1 pint).

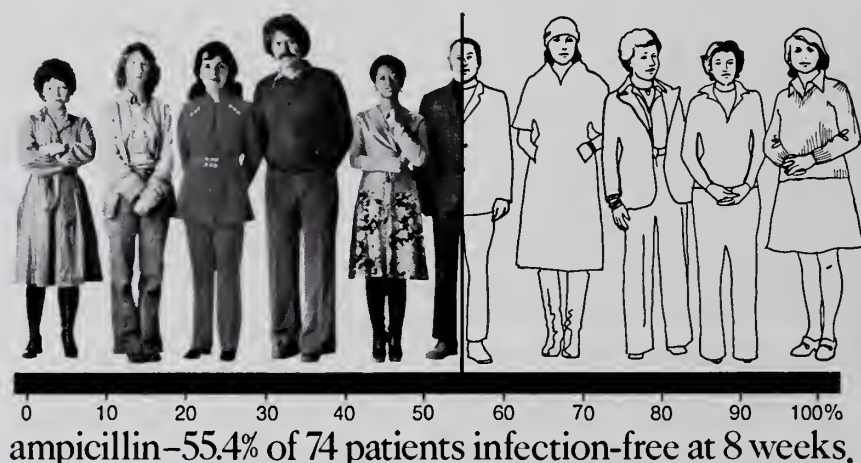
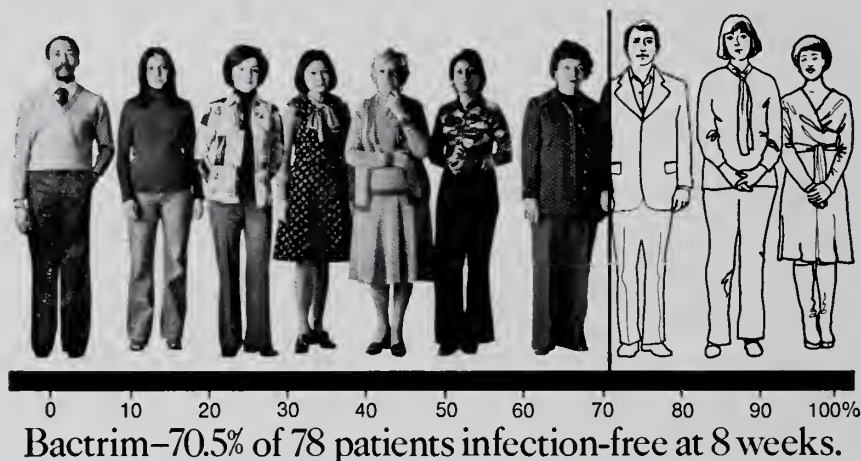


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In a multicenter study of patients with chronic or frequently recurrent urinary tract infe

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Bactrim was 27.2%* more effective than ampicillin in keeping patients infection-free for 8 weeks.†



*This percentage is arrived at by the statistical method of dividing the difference between Bactrim and ampicillin results (15.1%) by the percent of ampicillin results (55.4%).

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BactrimTM DS

(160 mg trimethoprim and 800 mg sulfamethoxazole)

Double Strength tablets Just 1 tablet B.I.D.

Please see summary of product information on preceding page.

ROCHE

Note: Bactrim tablets were used in these clinical trials. Bioequivalency studies show one Bactrim DS double strength tablet is equivalent to two Bactrim tablets.

Missouri Medicine

JOURNAL OF THE MISSOURI STATE MEDICAL ASSOCIATION



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VOLUME 73, NUMBER 7

Special Report:

ACTIONS and EVENTS

of the

Missouri State Medical Association

118th

ANNUAL SESSION

See Contents on Page 301

119th MSMA Annual Session

April 14-17, 1977, St. Louis

Both after



Predominant
psychoneurotic
anxiety

Associated
depressive
symptoms

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Tension and anxiety states; somatic complaints which are concomitants of emotional factors; psychoneurotic states manifested by tension, anxiety, apprehension, fatigue, depressive symptoms or agitation; symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in skeletal muscle spasm due to reflex spasm to local pathology, spasticity caused by upper motor

neuron disorders, athetosis, stiff-man syndrome, convulsive disorders (not for sole therapy).

Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma; may be used in patients with open angle glaucoma who are receiving appropriate therapy.

Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive dis-

orders, possibility of increase in frequency and/or severity of grand mal seizure may require increased dosage of standard convulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms (similar to those with barbiturates and alcohol) may occur following abrupt discontinuation (convulsions, tremor, abdominal and muscle cramps, vomiting and sweating). Use with caution in addiction-prone individuals under careful

respond to one

According to her major symptoms, she is a psychoneurotic patient with severe anxiety. But according to the description she gives of her feelings, part of the problem sounds like depression. It is because her problem, though primarily one of excessive anxiety, is often accompanied by depressive symptoms. Valium (diazepam) provides relief for both—as excessive anxiety is relieved, the depressive symptoms associated with it are also relieved.

There are other advantages in using Valium for the treatment of psychoneurotic anxiety with secondary depressive symptoms: the psychotherapeutic effect of Valium is pronounced and rapid. This means that improvement is usually apparent

in the patient within a few days rather than in a week or two, although it may take longer in some patients. In addition, Valium (diazepam) is generally well tolerated; as with most CNS-acting agents, caution patients against hazardous occupations requiring complete mental alertness.

Also, because the psychoneurotic patient's symptoms are often intensified at bedtime, Valium can offer an additional benefit. An *h.s.* dose added to the *b.i.d.* or *t.i.d.* treatment regimen can relieve the excessive anxiety and associated depressive symptoms and thus encourage a more restful night's sleep.



Valium[®] (diazepam) [Ⓢ]

2-mg, 5-mg, 10-mg scored tablets

in psychoneurotic
anxiety states
with associated
depressive symptoms

caution because of their predisposition to habituation and dependence. In pregnancy, lactation or women of childbearing age, weigh potential benefit against possible hazard.

Interactions: If combined with other psychotropics or anticonvulsants, consider the cumulative pharmacology of agents employed; drugs such as phenothiazines, barbiturates, MAO inhibitors and other antidepressants may potentiate sedation. Usual precautions indicated in severely depressed, or with latent suicidal tendencies.

Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle

spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.



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Missouri Medicine

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Minutes of the House of Delegates

118th Annual Session

Missouri State Medical Association

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Testing in Humans: Who, Where & When.

The weight of ethical opinion:

Few would disagree that the effectiveness and safety of any therapeutic agent or device must be determined through clinical research.

But now the *practice* of clinical research is under appraisal by Congress, the press and the general public. Who shall administer it? On whom are the products to be tested? Under what circumstances? And how shall results be evaluated and utilized?

The Pharmaceutical Manufacturers Association represents firms that are significantly engaged in the discovery and development of new medicines, medical devices and diagnostic products. Clinical research is essential to their efforts. Consequently, PMA formulated positions which it submitted on July 11, 1975, to the Subcommittee on Health of the Senate Labor and Public Welfare Committee, its official policy recommendations. These are the essentials of PMA's current thinking in this vital area.

1. PMA supports the mandate and mission of the National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research and urges to establish a special committee composed of experts of appropriate disciplines familiar with the industry's research methodology to volunteer its advice to the Commission.

2. PMA supports the formation of an independent, expert, broadly based and representative panel to assess the current state of drug innovation and the impact upon it of existing laws, regulations and procedures.

3. When FDA proposes regulations, it should prepare and publish in the *Federal Register* a detailed statement assessing the impact of those regulations on drug and device innovation.

4. PMA proposes that an appropriately qualified medical organization be encouraged to undertake a comprehensive study of the optimum roles and responsibilities of the sponsor and physician when company-sponsored clinical research is performed by independent medical investigators.

5. PMA recognizes that the physician-investigator has, and should have, the ultimate responsibility for deciding the substance and form of the informed consent to be obtained. However, PMA recommends that the sponsor of the experiment aid the investigator in discharging this important responsibility by providing (1) a document detailing the investigator's responsibilities under FDA regulations with regard to patient consent, and (2) a written description of the relevant facts about the investigational item to be studied, in comprehensible lay language.

6. In the case of children, the sponsor must require that informed consent be obtained from a legally appropriate representative of the participant. Voluntary consent of an older child, who may be capable of understanding, in addition to that of a parent, guardian or other legally responsible person, is advisable. Safety of the drug or device shall have been assessed in adult populations prior to use in children.

7. PMA endorses the general principle that, in the case of the mentally infirm, consent should be sought from both an understanding subject and from a parent or guardian, or in their absence, another legally responsible person.

8. Pharmaceutical manufacturers sponsoring investigations in prisons must take all reasonable care to assure that the facilities and personnel used in the conduct of the investigations are suitable for the protection of participants, and for the avoidance of coercion, with a respect for basic humanitarian principles.

9. Sponsors intending to conduct non-therapeutic clinical trials through the participation of employee volunteers should expand the membership and scope of its existing Medical Research Committee, or establish such an internal Medical Research Committee, with responsibility to approve the consent forms of all volunteers, designs, protocols and the scope of the trial. The Committee should also bear responsibility to ensure full compliance with all procedures intended to protect employee volunteers' rights.

10. Where the sponsor obtains medical information or data on individuals, it shall be accorded the same confidential

status as provided in codes of ethics governing health care professionals.

11. PMA and its member firms accept responsibility to aid and encourage appropriate follow-up of human subjects who have received investigational products that cause latent toxicity in animals or, during their use in clinical investigation, are found to cause unexpected and serious adverse effects.

12. PMA supports the exploration and development by its member companies of more systematic surveillance procedures for newly marketed products.

13. When a pharmaceutical manufacturer concludes, on the basis of early clinical trials of a basic new agent, that a new drug application is likely to be submitted, a proposed development plan accompanied by a summary of existing data, would be submitted to the FDA. Following a review of this submission, the FDA, and its Advisory Committee where appropriate, would meet with the sponsor to discuss the development plan. No *formal* FDA approval should be required at this stage. Rather, the emphasis should be on identification of potential problems and questions for the sponsor's further study and resolution as the program develops.

The PMA believes that health professionals as well as the public at large should be made aware of these 13 points in its Policy on Clinical Research. For these recommendations envisage constructive, cooperative action by industry, research institutions, the health professions and government to encourage creative and workable responses to issues involved in the clinical investigation of new products.



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FIVE LOCATIONS to serve you:

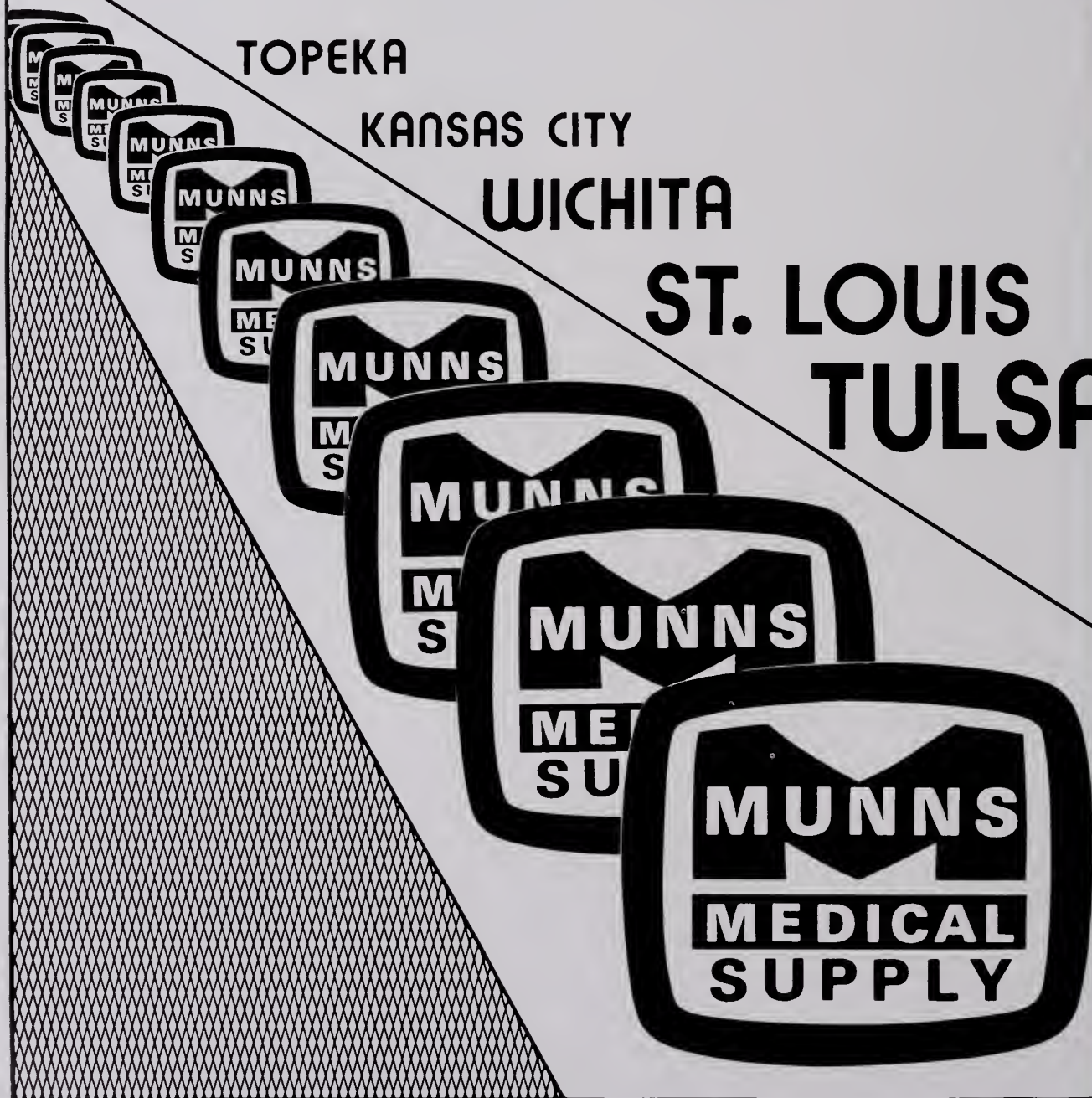
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July, 1976

Malpractice bills signed!!

Five bills designed to ease the problem of escalating costs of malpractice insurance, which were passed during the 1976 General Assembly, were signed into law June 16 by Gov. Christopher Bond.

The five bills, plus another bill signed earlier, were strongly supported by the Missouri State Medical Association during the Session. The bills evolved from recommendations of a Select Senate Committee and a Governor's Task Force which studied the malpractice situation preceding the General Assembly.

The bills will:

- Establish medical malpractice review panels to screen claims before suits can be filed in court. The nonbinding review would be conducted by a panel of two physicians, one of whom must be in the specialty of the defendant, two attorneys and a layman, under the supervision of a circuit judge.
- Place anyone 10 years old or older under the state's "two year from the act" Statute of Limitations for filing suits. The present age is 21. In the case of foreign objects negligently left in the body, the patient would have two years from the date of discovery or 10 years from occurrence, whichever comes first, to sue.
- Give increased powers to the Missouri Board of Registration for the Healing Arts to suspend physicians

from practicing on grounds of incompetence.

- Require insurance companies to make annual reports of malpractice claims to the Missouri Division of Insurance.
- Authorize, if needed, the establishment of a Joint Underwriter's Association to provide malpractice insurance coverage for physicians.

The bill signed earlier by the Governor removes the ad damnum clause from malpractice suits so that the plaintiff cannot ask for a specific amount in a suit, but rather request "fair and reasonable" compensation.

John I. Matthews, M.D., Chairman of the MSMA Legislative Affairs Committee, said he felt the six bills passed by the General Assembly represent a start in the right direction toward helping solve the complex malpractice insurance crisis. The Legislative Affairs Committee and a special Ad Hoc Committee on Professional Liability established by the MSMA House of Delegates are already at work seeking further solutions to the problem.

All of the bills will go into effect August 13 except the review measure which has an effective date of Jan. 1, 1977, provided, however, that no board shall be convened prior to July 1, 1977.

Missouri challenges

Health Planning Act

The State of Missouri has filed suit in federal district court challenging the constitutionality of the National Health Planning and Resources Development Act of 1974 (PL 93-641).

The act is to set up Health Systems Agencies (HSA's) throughout the country to devise health plans and recommend policies of health care development to state health planning councils, also established under the act.

The suit, filed at the request of Gov. Christopher Bond, challenges the act in several areas: (1) It infringes on powers reserved to the states under the 10th Amendment; (2) it restricts the number of elected officials on any HSA board to a third of the board members; (3) it regulates that state's public regional planning bodies cannot be agencies of the state; (4) it requires that public regional planning bodies could be considered for designation as an HSA only if the body had been in existence before Jan. 1, 1975.

Gov. Bond had worked for revisions or repeal of the act for more than a year. The state first threatened to sue the Government after the Department of Health, Education

(Continued on Next Page)



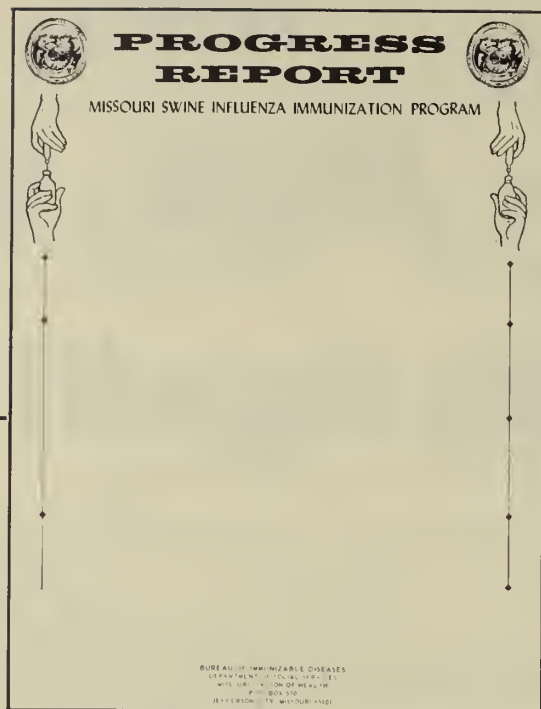
New law

increases child abuse reports

The number of reported child abuse cases increased nine times last year following passage of a new state law in 1975. In all, more than 15,000 cases have been reported since last summer.

The year-old law requires anyone responsible for child care, including physicians, to report suspected child abuse or neglect to the Missouri Division of Family Services. The Division has a Toll Free Telephone Number (1-800-392-3738). Within 48 hours after the initial report, a written report must be furnished to the Division. Report forms are available from the Missouri Division of Family Services, State Child Abuse/Neglect Unit, Broadway State Office Building, Jefferson City, Missouri 65101.

The law provides immunity for reporters of child abuse.



Special report, number planned for swine flu

Legal questions seem to be taking the headlines in the proposed "swine flu" immunization project planned for this Fall.

At this writing, various government agencies, medical society attorneys and others are attempting to work out methods for limiting the liability on drug manufacturers and health-care professionals who would be involved in the project.

In the meantime, the Missouri Division of Health is proceeding to make arrangements for the delivery of vaccine and immunization of the population on the assumption that the legal problems will be solved. Division personnel have already contacted several medical societies and hospital staffs plus various volunteer groups to establish plans for both mass clinic immunizations and private office immunizations.

MSMA members should alert their office personnel to watch for the above "Progress Report" on swine flu which will be issued on an "as needed" basis by the Division of Health.

In addition, the Division has set up a "Swine Flu Telephone Number" and physicians can seek specific information by calling (314) 751-2424 collect.

Health Planning Act

(Continued)

and Welfare overruled two HSA designations submitted by Bond.

The American Medical Association had previously joined with the North Carolina Medical Society in filing suit against implementation of the act. In addition, the Louisiana Medical Society and the National Association of Regional Councils have filed separate suits against the government concerning PL 93-641.

News briefs

Interim Session mailing

MSMA members were recently mailed official notification that the first Interim Session of the Association's House of Delegates will be held Nov. 3-4, 1976, at Tan-Tar-A Lodge at the Lake of the Ozarks.

Included in the mailing was a questionnaire published by the U.S. General Accounting Office which sought Missouri physicians' opinions of the Medicaid program. Returns have already begun flowing into MSMA Headquarters and members are urged to complete the survey and return it so meaningful statistics can be obtained.

Dr. Callaway dies

Dr. Guy Drennan Callaway, 86, of Springfield, died June 5 following about a six-month illness.

Dr. Callaway, who retired at age 72, was a past president of the Greene County Medical Society, a past Vice President of the Missouri State Medical Association, a Fellow of the American College of Physicians and helped organize the Missouri Chapter of the American Heart Association.

Dr. Callaway had been in private practice in Springfield since 1920 and was a charter member of the Smith-Glynn-Callaway Clinic which was formed in 1924.

Malpractice group meets

The special committee directed by the MSMA House of Delegates to seek additional solutions to the professional liability insurance problem met June 20 in Columbia.

The Ad Hoc Committee on Professional Liability, chaired by Dr. George L. Hawkins, Jr., of St. Louis, began work on proposed legislation which will be presented at the Interim Session of the MSMA House of Delegates, Nov. 3-4, 1976, at Tan-Tar-A.

The committee is working with other health care organizations in developing proposals. Another meeting is scheduled July 11.

Drug ad ban hit

The U.S. Supreme Court ruled recently that states cannot prohibit druggists from advertising prescription drug prices.

Keith Breshears, Secretary of the Missouri Board of Pharmacy, feels the ruling will have little effect in Missouri since state laws do not now prohibit drug price advertising.

A few stores advertise, said Breshears, but most druggists say the practice is expensive and just doesn't pay off.

Winners of drawing

Four MSMA members received an extra bonus at the 118th Annual Session by winning the attendance prizes in a drawing of registrants who visited the Technical Exhibit Booths.

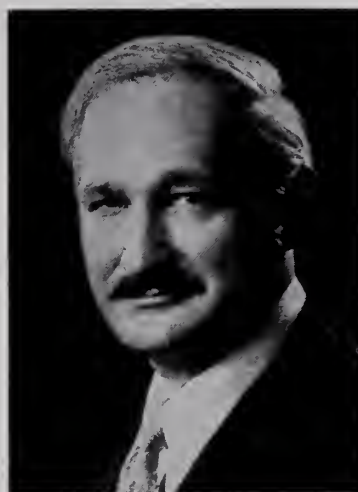
Dr. George V. Feist, Kansas City, and Dr. Kenneth E. Knabb, Springfield, won pocket calculators while Dr. Joe E. Wall, Houston, and Dr. Peter B. H'Doubler, Springfield, won binoculars.

Missouri Medicine

JOURNAL OF THE MISSOURI STATE MEDICAL ASSOCIATION

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Remarks of R. Allen Chandler, M.D., President



Mr. Speaker, Officers, Delegates, Members and Guests:

The past year has been very enlightening to me. It has been pleasing in some ways and frustrating in others. If a year ago I had held the thought that the position of President of the Missouri State Medical Association was honorary in nature and that the members really did not look to that person for leadership, I was quickly jolted from that notion.

My term might be classified as the "Malpractice Era—Part I." Although the malpractice insurance problem had begun to surface shortly before I became President, it sprang into full bloom following my inauguration. That's when the telephone started ringing and the cards and letters came flooding in. To be honest, that one-to-one contact is one part of the year that pleased me most. It was a prime example of physicians becoming concerned enough to become active.

During my years in organized medicine, I have found that nothing short of an immediate crisis will cause physicians to become involved. In the past, I have watched our colleagues sit on the sidelines and let someone—anyone—fight their battles. This,

obviously, was quite disconcerting. But the malpractice insurance situation did bloom into an immediate crisis for many of our members and they responded quickly. It might come as a surprise to some of you to know that we still have many members who ask, "What malpractice crisis?" However, the majority of physicians in Missouri are fully aware that there is a serious problem in the professional liability insurance market.

Throughout the year, your officers, councilors and countless members, to all of whom I owe my thanks, stepped to the line to do battle with this crisis. Committees were formed not just to study and arrive at no conclusions. They were instructed to find ways to alleviate the problems. The Missouri Legislature and the Administration "picked up the ball" and named a special Senate Committee on Malpractice and a Governor's Task Force on Malpractice.

We were fortunate enough to have the Chairman of the MSMA Council appointed to the Task Force to insure our input. As the Special Senate Committee traveled the state to gather testimony, the MSMA was heard at each stop—sometimes rep-

resented by Councilors, sometimes represented by individual members.

Your Medical Association was responsible for initiating much of the early activity in finding ways to correct the malpractice problems and your Association was on hand at the various hearings to present the view of the physicians of this state. The result of this work appeared in the form of proposed bills introduced in the Missouri General Assembly—three in the Senate and six in the House.

At that time, the MSMA Legislative Committee and, later, the Council reviewed the bills and determined the stands we should take. As the Legislative Session opened, the Association offered testimony before the Senate and House committees considering the bills. We were surprised, and so were the Legislators, at the large number of doctors who turned out at these hearings. I feel we must compliment the Legislators on the courtesy and knowledge they exhibited at the hearings.

As is the usual case in proposed legislation, not all of the bills reported out-of-committee follow the exact guidelines we desired. Therefore, your officers along with staff and a growing list of interested physicians across the state and a growing list of other interested people began contacting their Senators and Representatives in an attempt to restore some of the bills to language we felt more appropriate to do the job. On some of these suggested changes, we succeeded. On others, we did not.

Just last week in a hearing on the Senate bills before the House Committee, your Association, after careful consideration, reiterated its support of the bills. We recognized that Senate Bill 471, which I thought was the "biggie" and which would establish review panels to preview malpractice cases, had been "watered down" considerably. However, we felt that even the watered-down version does offer some incentive to reduce the number of nuisance cases filed. Plus this, we felt that we should give the proposal a chance by working under the law for a few months. Then, if necessary, come back with amendments at the next session.

It is easier to have a law in effect and then change it by amendment than to start from scratch.

The chances of passage of this particular bill were severely damaged by the opposing testimony of some of our own members. The Legislative process is a compromising thing. You get what you can the first time and go back for improvements the next time. I fear that this bill may have been mortally wounded during the hearing. We will

have to wait another year to initiate action in this area. However, communication with those in Jefferson City yesterday has changed my mind a bit. They seem to think that this will come out of committee. I sincerely hope so.

As we meet here today, the Legislature still has a month remaining in its current session. Truthfully, I expect some of the malpractice bills to undergo more change before passage. I just wish I could be sure of passage. Your Association will continue to work with the lawmakers with the hope of gaining legislation that will serve to halt the runaway malpractice insurance premium costs to you and, ultimately, to your patients.

Although the malpractice problem dominated the activities of your Association the past year, I would be remiss not to mention some other areas of interest to our members.

An Association-sponsored Continuing Medical Education Program designed to take the learning opportunities to the local physician was begun. Initial reaction from the membership has been good. We are hopeful that this new approach to continuing education will save our members both the time and expense associated with attending distant seminars.

An area which often is not visible to the membership is the nearly constant contact your Association has with government agencies on the state and national levels. A seemingly endless flow of proposed new government laws and regulations requires communications, both written and personal with our congressional delegation and the many bureaucracies in Washington and Jefferson City. These proposals affect everything from the way you would be allowed to practice medicine to what you should be paid for the way they want you to practice medicine. In each, and often with great assistance from the AMA, we make sure that the opinions of the private physician are always represented.

You will notice that although the MSMA offers its members many services, our primary purpose has become that of affecting the legislative or administrative dictums in one way or the other.

Therefore, if you will look a few months ahead I believe you will see that physicians have the opportunity, perhaps, to alter somewhat the continuing movement of medicine by government decree. We recognize, of course, that the presidential election will be held in November. But do you realize that one half of Missouri's congressional delegation already has announced that they will

not return to Washington to their old seats?

We will elect one new U. S. senator. Five of Missouri's ten seats in the U. S. House are up for grabs by new representatives. As we grumble about the direction of the government, let us not forget that we have the opportunity to have some say-so in these elections through individual efforts and through our very effective Missouri Medical Political Action Committee.

What about the state level? We know we will need further action on malpractice and in other medical legislation areas. Well, one half of the Missouri Senate will be elected this year and many of the incumbents have announced that they will not be candidates. It is vital that we work for

nomination and election of people who will listen to medicine's point of view.

All of the Missouri House members will stand for election this fall. As in the Senate, many incumbents, especially some of our friends, have not filed for another term. If we expect to continue to have effective input into the Legislature, we must help the candidates of our choice.

I hope that each of you here will take back to your constituents the messages that come out of this Annual Session. And I hope that one of those messages will be that their Association is working hard for the good of medicine. Without the help and guidance of individual members on the local front, however, our effectiveness is limited.

★

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Remarks of Max S. Franklin, M.D., President-Elect

Mr. Speaker, Dr. Chandler, Dr. Parrott, fellow Delegates of the Missouri State Medical Association, Ladies and Gentlemen:

I feel that it is most fitting that I speak to you first of all in regard to the malpractice insurance crisis which is by far the topic of most concern to most physicians today. It is not our only problem, but it does hold down the Number One ranking in the Physicians' Problem Poll.

President Chandler has already detailed the past and present efforts of our Association to gain relief from this crisis. The effort has been substantial, and we hope the results will be meaningful.

We shall not quit when the current Legislative Session ends, but will continue to search for new answers to what has become a very real problem to Missouri doctors as well as to the other doctors across the country. This will not be an easy task.

Many of the bills now progressing through the Legislature face steady attacks from many sides. These attacks range from those Legislators who feel that physicians earn enough money to pay malpractice insurance rates at any price to those lawmakers who question the constitutionality of some of the bills. Let me assure you that we have much work ahead of us.

Even if the current legislative package is passed in favorable form, it will not completely solve all our problems and we may have to look to additional remedial means for an answer. During this Annual Session of the MSMA, the Delegates in the House will have the opportunity to hear the facts, study them carefully and determine in which direction our Association shall proceed.

Aside from the very worthy ideas expressed in several resolutions before this body, I, personally, hope that we can find a way to convince all of our

members that, perhaps, the most effective way to improve the malpractice picture is one that costs no money and requires no legislation. It is simply good patient-physician relationship. We must all strive harder to develop mutual trust and respect with our patients. Remember, friends seldom sue friends.

The malpractice crisis could consume all of my speech and all of the House's time at this Annual Session. But, that in itself is bad. We cannot afford to let this crisis blind us to the many other areas of concern this Association and our profession face.

In my first talk with you, therefore, I would like to discuss some of the problems and things I hope to accomplish this year.

First of all, it might be possible to help to elect one of our AMA Delegates to the Board of Trustees of the AMA. The last Missouri doctor who was on that Board of Trustees was Dr. McVay of Kansas City and that was about 25 years ago—much too long to keep somebody from Missouri from that Board. Dr. Hugh Ritter has already shown his ability in the AMA House of Delegates and with AMPAC, and most of us feel and hope that we can get him elected to the Board of Trustees. I pledge that I will do my very best to help him to be elected.

Second, I hope that at this meeting, members of our House of Delegates will vote for unified membership with the AMA. The vote on this last year was a majority, but not the two-thirds vote needed for passage. Most of you already belong to the AMA, but some of you do not like the compulsory aspect of unified membership. As a few of you have told me, you don't want to feel under the thumb of the AMA. I am quite sure that the American Medical Association does not have any thumbs, but

merely protective hands to help its membership.

Fellow Delegates, you already are under many thumbs. Some of these thumbs are what Dr. David Hall of Springfield calls an "alphabet soup of federal medicine"—HEW, PSRO and too many others to even dignify by mentioning them. One state alone has no power to combat socialized or government medicine. Fifty states, each acting individually, have no power, but with all M.D.s belonging to the AMA, just think of the political clout the AMA will have, especially with its new dynamic leadership.

Let me repeat that: With all the doctors belonging to the AMA, just think of the political clout the AMA will have.

The "clown prince of Chappaquidick" will no longer be able to taunt the AMA about its lack of 100% membership. Our new leadership will have much more power to move against the "alphabet soup of federal medicine." With our stronger membership, that mean labor boss, whose full name I can't remember, will no longer be able to cast aspersions on our union, if I may take the liberty at this time only of calling the AMA a union. Our northern neighbors in Canada have just announced that their doctors are going to seek unification and that unified membership is the only way to prevent a mess such as has happened in England. I think most of you will agree with me on that.

Seven or eight states already have unified membership; several others are now considering it. I sincerely hope that we consider it successfully. I have discussed the possibility of redistricting with the planning committee, especially if the St. Louis Medical Society and the St. Louis County Medical Society finally agree to merge. I shall ask the Chairman of the Planning Committee to select an ad hoc committee to study the problem of redistricting, so that we can be ready for any such

eventuality.

My attention has been called by a number of our members, especially the older ones, to the possibility of reexamination for relicensure. Many of the older members will retire rather than go through reexaminations. They would be sorely missed because they are seeing most of the patients since they are all clinicians.

If any such legislation is being considered, we must convince the Legislature that the best solution is continued medical education with the Missouri State Medical Association being responsible for it. Postgraduate training or continued medical education by mail, tapes, hospital meetings or other means that can be arranged by the Commission on Continuing Education should suffice rather than have the Legislature pass a bill for recurrent examination.

Can you imagine the lawyers passing such a bill for themselves? Many small-town doctors cannot leave their practices to take postgraduate courses since they may be the only doctor in their towns. Ways and means must be considered in the overall picture and by the Committee on Planning and the Commission on Continuing Education.

In order to pass legislation favorable to doctors, we must do more lobbying at the Legislature. This will take money which we cannot get from AMPAC since that money is to be used for candidate purposes only. We must devise some method of getting money from our members for the expenses of lobbying without endangering our tax-free structure. Possibly, this can come from our new corporation, the Missouri State Medical Insurance, Incorporated.

I have mentioned just a few things that we must do this coming year. There are others, of course. I will need help and advice from all of you, and I hope and pray that it will be forthcoming.



Report of Mrs. William R. McPhee, President of the Woman's Auxiliary

Mr. Speaker, Dr. Chandler, Dr. Parrott, Delegates and Guests:

It really is a pleasure for me to be with you this afternoon with the report of the Auxiliary.

Last year at this time, the Auxiliary examined its potential and set six goals for the current year. The goals covered the major areas of Health Education, Scholarships, Legislation, Service and Membership. Today, I would like to review these goals with you and to weigh the accomplishments because, in truth, the unnamed authors of this report I am about to give you are your wives. As I proceed, I hope that you will be able to identify closely with the projects and the programs we have undertaken.

The first and major goal that we set was to promote good health education. In the fall, the Auxiliary initiated a statewide immunization program. This was undertaken with the cooperation of the MSMA and the Missouri Division of Health. The proposal was that as many Missourians as possible receive a communication directly from their own physicians and Health Department containing valid immunization information and a small health record book. Physician participation was voluntary. At the conclusion of the project, nearly 200,000 copies of each item had been mailed. If you use a figure of three persons in each family, then a potential of well over one half million persons were personally alerted by their own physicians to the need for continuing protection against preventable infectious diseases.

Currently, the State Health Education Committee is involved in a new project: The distribution

of posters illustrating the Heimlich Maneuver, a first aid procedure for food-choking victims. To date, nearly 2,000 posters have been distributed.

The second goal set by the Auxiliary was to support medical education through loans and scholarships.

The Auxiliary has contributed more than \$28,000 this year to the advancement of medical education, and we are still counting. This figure includes special local scholarships and loans, AMA-ERF contributions and donations to the Missouri State Medical Foundation. Of course, the results of our major MSMF fund-raising project, a Silent Auction of the art of Missouri's medical families, are yet to be tallied. The auction will take place in the Grand Avenue Gallery during this Convention. We invite your support and active bidding.

The third goal was to keep our membership informed on current health issues and to involve them in working for good medical legislation. This goal has been accomplished in two main areas—the dissemination of information concerning the National Health Planning and Resources Act and our subsequent monitoring of the planning sessions for HSAs.

Secondly, as Dr. Chandler mentioned, is cooperation with the Medical Association in supporting medical liability legislation now under consideration by the Legislature. We also have established a "legislative alert line" to be used upon your request. Also, we are sponsoring a Public Affairs Breakfast this Saturday morning, at which our featured speaker will be Dr. Max Parrott.

The fourth goal that we set was for improved

communication—both internally and externally.

During this past year, we have attempted to carry medicine's story to our fellows in an informed, enthusiastic manner. By speaking for the profession, by telling about the good things medicine is doing and by lending a positive image, we hope to make the public more aware of the great amount of public service rendered by our husbands and the Auxiliary.

We have attempted to communicate with you individually and with the physician organization through the pages of *MISSOURI MEDICINE* and through the privilege of attending the Council meetings of the MSMA. By attending these Council sessions, we are better able to translate our activity into areas of mutual impact. We have gained deeper insight into the issues facing our physician-husbands. The fields in which the two organizations work closely are constantly and rightly being expanded. We are grateful for your continued support of *Missouri Doctor's Wife*, our quarterly bulletin, which is mailed to every Missouri Auxiliary member.

We are endeavoring to communicate with all physicians' wives who have accompanied their husbands to this Convention, whether or not they be our members, by making this gathering a time of friendly hospitality. In that light, we have planned activities for these nonmembers.

Goal number five was community service.

These have been exciting and diversified programs conducted by the full sweep of our membership. These are the projects that lend prestige to our organization and give heart to our words. This is where the hours are spent. This is the nucleus of our volunteer effort. In that spirit, our counties have demonstrated concern for the aging by participation in programs of friendly visiting, telephone reassurance, homemaker and meals programs, the establishment of senior centers and staffing recovery programs for stroke victims.

We've shown our concern for our youth through

active involvement in programs for the screening of learning disabilities and sight and hearing, support of teenage drug abuse centers, help with child abuse programs and the staffing of immunization and prenatal clinics.

We've shown our concern for our communities by initiating blood donor and physical fitness programs, cooperating in active environmental and solid waste projects and sponsoring and staffing screening programs for hypertension and diabetes.

Our final goal was that of meaningful membership. Today, there are 1,730 of us with the potential to double that. Each one is qualified to be a leader. Each one is needed because she is capable of bringing a unique blend of experience and potential to us. Together, we are large and represent a tremendous volunteer power. But as you know, it is not really the organization that accomplishes things. It is what each of us does as an individual that adds up.

This has been a memorable and very rewarding year. We have organized a new Auxiliary in the Mineral Area. We have had an exceptionally strong Board. They have served us well by providing constant and dedicated contact with our membership where, after all, the true work is done.

In closing, I would like to introduce Mrs. George P. Wilson from Columbia who will be the Auxiliary leader for the next year.

I also would like to express our appreciation to all of the MSMA Officers, the Council and Staff, who have been so supportive to us, both morally and financially. We are indebted to those who have encouraged our leadership and who have helped in molding programs, for they have believed firmly in our efforts and have helped give substance to our work with their continuing interest and foresight.

Finally, I bring greetings to you from our members and our very best wishes to you for a most successful Convention.

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**Minutes of the
118th Annual Session**

MISSOURI STATE MEDICAL ASSOCIATION

House of Delegates

Crown Center Hotel, Kansas City

April 1-4, 1976

FIRST SESSION

The First Session of the House was called to order at 1:30 PM on April 1, 1976 in the Century Room with James T. Brown, Speaker, presiding. The following officers, councilors and delegates were present during the 118th Annual Session.

OFFICERS

President R. Allen Chandler, Kansas City
President-Elect Max S. Franklin, St. Louis
Vice-President Lysle M. Bach, Hannibal
Vice-President T. Eugene Ruff, Poplar Bluff
Vice-President Fred D. Fowler, Kansas City
Secretary John I. Matthews, Jefferson City
Treasurer Richard V. Bradley, St. Louis
Speaker of the House James T. Brown, Springfield
Vice-Speaker of the
House Edwin K. Burford, Jr., Cape Girardeau
Immediate Past-President James C. Cope, Columbia

COUNCILORS

1st District John N. Martin, St. Joseph
2nd District J. Russell Comer, Hannibal
3rd District Donald R. Judd, St. Louis
4th District Louis P. Hetlage, Troy
5th District Robert E. Bregant, Jefferson City
6th District William D. Bradshaw, Clinton
7th District Andrew McCause, Kansas City
8th District Howard J. McAlhany, Springfield
9th District Claude W. Cooper, Thayer
10th District Eugene T. Hansbrough, Poplar Bluff

DELEGATES

First District

Buchanan Allen I. Herman, St. Joseph
Buchanan Charles N. Mullican, St. Joseph
Buchanan Donald J. Stallard, St. Joseph
Buchanan Ernest D. Wadlow, St. Joseph
Clay Donald A. Fakhoury, Kansas City
Clay Richard C. Hedges, Excelsior Springs
Clay Donald E. Kuenzi, Kansas City
Clay T. B. Schertz, Kansas City
Grand River E. Warren Allen, Carrollton
Grand River Ralph W. Bohnsack, Brookfield
Grand River W. A. Broyles, Bethany
Grand River Thomas N. Cofer, Chillicothe
Grand River Albert D. Cross, Trenton
Grand River John R. Dixon, Brookfield

Grand River Fred K. Wilson, Winston
Northwest Missouri Edward F. Bare, Tarkio
Northwest Missouri Patrick B. Harr, Maryville
Northwest Missouri Frank B. Matteson, Grant City
Northwest Missouri Troy Morgan, Albany

Second District

Chariton-Macon-Monroe-
Randolph James E. Campbell, Macon
Chariton-Macon-Monroe-
Randolph G. R. Hudson, Moberly
Marion-Ralls-Shelby Patricio C. Avila, Hannibal
Marion-Ralls-Shelby Phillip B. Foreman, Hannibal
Marion-Ralls-Shelby Carl R. Kruse, Palmyra
Pike Phillip W. Pitney, Louisiana

Third District

St. Louis City John M. Anderson, St. Louis
St. Louis City Luis B. Anglo, St. Louis
St. Louis City Ralph L. Biddy, St. Louis
St. Louis City George Bohigian, St. Louis
St. Louis City Richard V. Bradley, St. Louis
St. Louis City Robert D. Brookes, St. Louis
St. Louis City T. J. Cooper, St. Louis
St. Louis City Pablo De Ungria, St. Louis
St. Louis City Richard H. Fallon, St. Louis
St. Louis City Daniel M. Fraser, St. Louis
St. Louis City Raymond O. Frederick, St. Louis
St. Louis City Paul L. Friedman, St. Louis
St. Louis City August W. Geise, St. Louis
St. Louis City William P. Hamilton, St. Louis
St. Louis City George L. Hawkins, St. Louis
St. Louis City James N. Heins, St. Louis
St. Louis City Charles Jost, St. Louis
St. Louis City Jack Kayes, St. Louis
St. Louis City John J. Kelly, St. Louis
St. Louis City Edward H. Kowert, St. Louis
St. Louis City Larry Lawton, St. Louis
St. Louis City Leo LeBlanc, St. Louis
St. Louis City Francis X. Lieb, St. Louis
St. Louis City J. Otto Lottes, St. Louis
St. Louis City Robert R. MacDonald, Jr., St. Louis
St. Louis City Napoleon S. Maminta, St. Louis
St. Louis City Antonio Q. Manansala, St. Louis
St. Louis City Paul F. Max, St. Louis
St. Louis City Roger C. Mell, St. Louis
St. Louis City Melvin E. Meyer, St. Louis
St. Louis City Lawrence O'Neal, St. Louis
St. Louis City F. E. Pennington, St. Louis
St. Louis City Richard T. Quick, St. Louis
St. Louis City David M. Riesler, St. Louis
St. Louis City Hubert A. Ritter, St. Louis



Dr. James T. Brown, Speaker of the House, calls the delegates to order and declares the 118th Annual Session officially opened.

St. Louis City	P. B. Salanga, St. Louis
St. Louis City	John S. Sciortino, St. Louis
St. Louis City	Charles S. Sherwin, St. Louis
St. Louis City	A. J. Signorelli, St. Louis
St. Louis City	Ivan W. Sletten, St. Louis
St. Louis City	Kenneth Smith, St. Louis
St. Louis City	James M. Stokes, St. Louis
St. Louis City	William Stoneman, III, St. Louis
St. Louis City	Geo. E. Thoma, St. Louis
St. Louis City	C. M. Turner, St. Louis
St. Louis City	Bruce J. Walz, St. Louis
St. Louis City	Carol F. Williams, St. Louis
St. Louis City	George Zografakis, St. Louis

Fourth District

Franklin-Gasconade-	
Warren	George A. Richardson, Union
Franklin-Gasconade-	
Warren	W. R. Richardson, Union
Franklin-Gasconade-	
Warren	George M. Workman, Hermann
Jefferson	Vicente D. Deles, Crystal City
St. Charles-Lincoln	James P. Felder, St. Charles
St. Charles-Lincoln	Paul H. Rother, St. Charles
St. Louis County	Vernon Balster, St. Louis
St. Louis County	Rudolph E. Catanzaro, St. Louis
St. Louis County	Robert B. Deitchman, Clayton
St. Louis County	Daniel C. Fabito, Maryland Heights
St. Louis County	John M. Laird, Florissant
St. Louis County	Howard E. Linder, Ballwin
St. Louis County	Jerry N. Middleton, St. Louis
St. Louis County	David Lee Ohlms, St. Louis
St. Louis County	Frederick D. Peterson, St. Louis
St. Louis County	Rudy Ruhling, St. Louis
St. Louis County	Melvin M. Schwartz, St. Louis
St. Louis County	James Sisk, St. Louis
St. Louis County	Frank J. Valach, St. Louis
St. Louis County	Miles C. Whitener, St. Louis

Fifth District

Audrain	Benjamin N. Jolly, Mexico
Boone	William C. Allen, Columbia
Boone	A. S. Baker, Columbia
Boone	George J. Fuchs, Columbia
Boone	Kenneth Keown, Columbia
Boone	B. A. Moranville, Columbia
Boone	John S. Spratt, Jr., Columbia
Boone	Hugh E. Stephenson, Jr., Columbia
Callaway	James K. Ritterbusch, Fulton
Cole	Mary K. McCaffree, Jefferson City
Cole	Kenneth Siu, Jefferson City
Cole	Robert Tanner, Jefferson City
Cooper	George W. Winn, Boonville
Howard	Wm. J. Shaw, Jr., Fayette
Morgan	J. Loren Washburn, Versailles

Sixth District

Butler	William W. Haynie, Butler
Henry	Richard H. King, Clinton
Johnson	Alfonso V. Sicat, Warrensburg
Lafayette-Ray	G. K. Davault, Richmond
Pettis	Albert J. Campbell, Sedalia
Saline	C. Alex McBurney, Slater
West Central	Alfred W. Eklund, Pleasant Hill
West Central	Robert L. Magee, Eldorado Springs
West Central	R. John Torontow, Nevada

Seventh District

Jackson	I. H. Clark, Grandview
Jackson	Robert C. Fairchild, Kansas City
Jackson	Calvin E. Englemann, Kansas City
Jackson	Fred D. Fowler, Kansas City
Jackson	Charles P. Gauthier, Kansas City
Jackson	Donald R. Griffin, Prairie Village, Kan.
Jackson	Edward E. Haith, Kansas City
Jackson	F. H. Hartwig, Shawnee Mission, Kan.
Jackson	William D. Hoadley, Shawnee Mission, Kan.
Jackson	Harry S. Jonas, Independence
Jackson	Donald E. McIntosh, Kansas City
Jackson	Edwin Ernest MacGee, Kansas City
Jackson	Robert M. Mathews, Kansas City
Jackson	R. K. Noback, Kansas City
Jackson	Thomas P. O'Farrell, Kansas City
Jackson	Milton B. Ozar, Kansas City
Jackson	Larry G. Piepergerdes, Kansas City
Jackson	Joe A. Pinkerton, Jr., Kansas City
Jackson	O. Dale Smith, Kansas City
Jackson	Walter J. Stelmach, Kansas City
Jackson	Warren F. Wilhelm, Kansas City
Jackson	S. Dwight Woods, Kansas City
Jackson	R. A. Youmans, Kansas City
Jackson	James P. Youngblood, Kansas City
Jackson	Raymond A. Amoury, Kansas City
Jackson	James H. Barloon, Kansas City
Jackson	Richard Don Blim, Kansas City
Jackson	Elwyn S. Brown, Kansas City

Eighth District

Dallas-Hickory-Polk-Dade	Evelyn Griffin, Buffalo
Dallas-Hickory-Polk-Dade	Olin A. Griffin, Buffalo
Greene	Walter A. German, Springfield
Greene	Anita M. Isaac, Springfield
Greene	Berry Ivy, Springfield
Greene	Don Menchetti, Springfield
Greene	Stanley S. Peterson, Springfield
Greene	David L. Spalding, Springfield
Greene	Leo M. Wyrsh, Springfield
Jasper	John Esther, Joplin
Jasper	Marvin Singleton, Joplin

Jasper Robert Willcoxon, Joplin
Ozarks Paul B. Anderson, Neosho
Ozarks Andres G. Apostol, Monett
Ozarks Kenneth Glover, Mt. Vernon
Ozarks Mary J. Merideth, Cassville
Ozarks D. E. Parkison, Shellknob
Ozarks Stanley D. Roper, Ozark
Webster Thomas M. MacDonnell, Marshfield

Ninth District

Mid-Missouri Bernard Draper, Rolla
Mid-Missouri Frank A. Elders, Cuba
Mid-Missouri R. W. Froelich, Lebanon
South Central Laureano G. Mayuga, Cabool
South Central W. Thomas Morgan, West Plains
South Central C. Franklin Smith, Willow Springs
South Central Joe A. Wall, Houston
South Central Jack N. Wiles, West Plains

Tenth District

Butler-Wayne-Ripley-
Carter Robert H. Laatsch, Poplar Bluff
Butler-Wayne-Ripley-
Carter George H. Ladyman, Poplar Bluff
Butler-Wayne-Ripley-
Carter T. Eugene Ruff, Poplar Bluff
Butler-Wayne-Ripley-
Carter Kirby L. Turner, Poplar Bluff
Cape Girardeau Melvin C. Kasten, Cape Girardeau
Cape Girardeau Harold B. Rapp, Cape Girardeau
Dunklin John D. Rigdon, Kennett
Mineral Area Boonfu Boonyasai, Pilot Knob
Mineral Area C. Wm. Chastain, Farmington
Mineral Area Norma Farmer, Farmington
Mineral Area R. V. Simpelo, Potosi
SEMO R. L. Frazier, Sikeston
SEMO Fuad H. Kandalaft, Dexter
SEMO Edwin J. Masters, Sikeston
SEMO John P. Sargent, Sikeston

DELEGATES-AT-LARGE

James T. Brown, Springfield, Speaker
Edwin K. Burford, Jr., Cape Girardeau, Vice-Speaker

Past-Presidents

Hector W. Benoit, Jr., Kansas City
Victor B. Buhler, Kansas City
James Cope, Columbia
Joseph L. Fisher, St. Joseph
Walter T. Gunn, St. Louis
Kenneth C. Hollweg, Kansas City
David N. Kerr, Clayton
Doyle C. McCraw, Bolivar
James R. McVay, Kansas City
Guy N. Magness, University City
Robert Mueller, St. Louis
Byron M. Stuart, Boonville
Gerald L. Miller, Kansas City
H. E. Petersen, St. Joseph
E. A. Stricker, Rolla

STUDENT DELEGATES

Mr. Jerry Alstott, University of Missouri-Kansas City School of Medicine
Ms. Dorothy J. Cline, St. Louis University School of Medicine
Mr. Jeffrey D. Coe, Washington University School of Medicine
Mr. Steve Cohle, University of Missouri-Columbia School of Medicine



The Honorable Charles B. Wheeler, mayor of Kansas City and a member of the MSMA, welcomes the physicians. He presented a "key to the city" to President R. Allen Chandler.

Mr. Mark E. Frisse, Washington University School of Medicine
Mr. Mark Kasten, University of Missouri-Kansas City School of Medicine
Ms. Tamara Ostapowicz, St. Louis University School of Medicine
Mr. Tom Prenger, University of Missouri-Columbia School of Medicine

The invocation was given by R. Allen Chandler, M.D., President of the Missouri State Medical Association.

Dr. Albert Cross presented the report of the Credentials Committee. He stated that satisfactory credentials had been presented by 151 delegates. He informed the House that this number of delegates constitutes a quorum and dispensed with a roll call.

The Speaker introduced the Honorable Charles B. Wheeler, Jr., M.D., the mayor of Kansas City and a member of the MSMA, who welcomed the Association members and guests. He spoke briefly and presented a key-to-the-city to President Chandler, who also is a resident of Kansas City.

Dr. Andrew McCanse, Chairman of the Committee on Arrangements, welcomed the Association members, their wives and guests to the 118th Annual Session and expressed hope for a successful meeting.

The Speaker introduced Mrs. Herbert L. Mantz of Kansas City, who served as Parliamentarian for the House of Delegates.

The minutes of the 117th (1975) Annual Session, which were published in the July 1, 1975 issue of MISSOURI MEDICINE, were approved as published.

Reference Committees

The Speaker announced appointment of the following reference committees and presented his instructions to the committees:

CONSTITUTION AND BYLAWS

James C. Sisk, St. Louis County, Chairman

George L. Hawkins, Jr., St. Louis
John R. Esther, Joplin
George H. Ladyman, Poplar Bluff
Joseph A. Pinkerton, Jr., Kansas City

MEDICAL EDUCATION AND PUBLIC WELFARE

William C. Allen, Columbia, Chairman
Anita Isaac, Springfield
S. Dwight Woods, Kansas City
Kenneth R. Smith, Jr., St. Louis
Robert L. Magee, El Dorado Springs

MISCELLANEOUS AFFAIRS

Fred D. Fowler, Kansas City, Chairman
Marshall Jung, Illmo
Paul H. Rother, St. Charles
Roger L. Mell, St. Louis
J. Loren Washburn, Versailles

NECROLOGY

Norma Farmer, Farmington, Chairman
Jerry Middleton, St. Louis County
Stanley D. Roper, Ozark
Allen I. Herman, St. Joseph
C. A. McBurney, Slater

REPORTS OF OFFICERS

T. N. Cofer, Chillicothe, Chairman
Mary McCaffree, Jefferson City
Jack N. Wiles, West Plains
August W. Geise, Jr., St. Louis
Stanley G. Hall, Hannibal

RESOLUTIONS

Charles S. Sherwin, St. Louis, Chairman
Vernon H. Balster, St. Louis County
Richard Hedges, North Kansas City
Walter A. German, Springfield
Thomas P. O'Farrell, Kansas City
Mark Kasten, Kansas City (Student)

The Speaker introduced Dr. Chandler who delivered the annual President's Message.

(The President's Message is published on page 307.)

The Speaker then asked Dr. Max S. Franklin to present the remarks of the incoming President.

(Dr. Franklin's address is published on page 310.)

(Both Presidential messages were referred to the Reference Committee on Reports of Officers.)

The Speaker then invited Mrs. William R. McPhee to present the annual report of the President of the MSMA Woman's Auxiliary.

(Mrs. McPhee's report is published on page 312. It was referred to the Reference Committee on Reports of Officers.)

The Speaker introduced Mrs. George P. Wilson, President-Elect of the Woman's Auxiliary to the MSMA.

The Speaker introduced Max. H. Parrott, M.D., President of the American Medical Association, who was a distinguished guest at the Annual Session. Dr. Parrott, who was the guest speaker for the annual Public Affairs Breakfast on Saturday, addressed the House of Delegates.

The Speaker stated that the reports of the Officers, Committees, Commissions and Council were published in the Delegates Handbook and referred the reports to the appropriate reference committees. He asked for any supplementary reports from the committee and commission chairmen. There were no supplementary reports.

The Speaker requested any supplementary report of the Council. He referred the various subjects within the Sup-

plementary Report of the Council to appropriate reference committees.

(This report is published on page 355.)

The reports of the Officers, Committees, Commissions and Council are as follows:

Reports of Officers

REPORT OF THE SECRETARY

The Missouri State Medical Association had 4,790 members as of Dec. 31, 1975. This was an increase of 118 members over the previous year.

MEMBERSHIP CHANGES DURING THE YEAR

Members, Jan. 1, 1975	4,672
New members admitted during year	323
Reinstated	6
Total added	329
Members dropped during year	42
Deceased	75
Transferred to other states	66
Resigned	28
Total lost	211
Net Gain	118
Members, Dec. 31, 1975	4,790

The Committee on Nominations, which is appointed by the President from the House of Delegates, must submit nominations for the following offices:

Three Vice-Presidents to fill the expired terms of Lysle M. Bach, Hannibal; Fred D. Fowler, Kansas City; T. Eugene Ruff, Poplar Bluff.

A Speaker of the House of Delegates and a Vice-Speaker of the House of Delegates to fill the expired terms of James T. Brown, Springfield, Speaker, and Edwin K. Burford, Jr., Cape Girardeau, Vice-Speaker.

Two Delegates and corresponding Alternates to the American Medical Association to fill the vacancies created by the expiration on Dec. 31, 1976 of the terms of Delegate, Stanley S. Peterson, Springfield; Alternate, James C. Sisk, Clayton; Delegate, Rae W. Froelich, Lebanon; Alternate, Melvin C. Kasten, Cape Girardeau.

The terms (two years) of the Councilors of the odd-numbered districts expire this year. These Councilors are John N. Martin, St. Joseph, First District; Donald R. Judd, St. Louis, Third District; Robert E. Bregant, Jefferson City, Fifth District; Andrew McCause, Kansas City, Seventh District; Claude W. Cooper, Thayer, Ninth District. Delegates from these districts shall meet during the meeting, prior to the last day, and elect the Councilor for their district. The election shall be certified to the House of Delegates on a prescribed form which will be furnished.

The entire session will be held in the Crown Center Hotel, Kansas City. The House of Delegates will hold its first session on Thursday, April 1, at 1:30 PM in the Century Room. Reference Committees will meet in committee rooms in the hotel. The second session of the House of Delegates will convene at 4 PM on Friday, April 2, in the Century Room. The final session of the House, a breakfast meeting, will be held in the Century Room at 7:30 AM on Sunday, April 4.

Registration facilities will be open on Thursday, April 1, from 11 AM to 4 PM; on Friday and Saturday from 8 AM to 5 PM; and on Sunday from 7:30 AM to 9 AM. Registration will be in the Century Foyer.

JOHN I. MATTHEWS, Secretary

(Referred to the Reference Committee on Reports of Officers.)

REPORT OF THE TREASURER

The report of the Treasurer is covered in the Financial Statement which appeared in the March issue of *MISSOURI MEDICINE* and is included elsewhere in the Delegates' Handbook. Therefore, it is not repeated here.

RICHARD V. BRADLEY, Treasurer

(Referred to the Reference Committee on Reports of Officers.)

REPORT OF THE EXECUTIVE SECRETARY

Professional Liability Insurance coverage for MSMA members during the past year and at present has been and is being given top priority in time and effort by MSMA Staff, Officers, Council and appropriate committees and commissions. Legislation to help reduce problems associated with physician liability insurance in Missouri is being considered through a number of legislative bills introduced in both the Senate and House of the Missouri General Assembly and approved by the MSMA Council.

Some 250 physicians from all over the state attended initial hearings on these bills before appropriate committees of the Senate and House during January. More detailed information on these bills and their legislative journey is contained in *MISSOURI MEDICINE*, special legislative reports and other means of communications. All members of the Association can be helpful by individually contacting their senators and representatives encouraging support of these bills.

The Missouri State Medical Insurance, Inc. (MSMI), approved by the MSMA House of Delegates at the 1975 Session, has been most helpful in furnishing physician liability insurance coverage for many members of the Association who for one reason or another have found it desirable to seek insurance through this company.

A special Ad Hoc Committee of the Council is studying the feasibility of the MSMA forming a Mutual Assessment Professional Liability Company under the State Enabling Law passed in 1975. There are many important factors involved in this consideration.

In addition to our activity relative to the Missouri General Assembly, continuous contact is maintained with Missouri's ten members of the U. S. House of Representatives and with our two U. S. Senators on specific health legislation on the federal level. The Association's Legislative Committee and Council direct overall staff activities in the legislative area of health-related bills.

The voluntary Continuing Medical Education program adopted by the 1975 MSMA House of Delegates is now underway. The AMA has officially approved the MSMA-CME Committee for approving medical programs in Missouri to designate Category I Credit toward the AMA recognition award. Information on the MSMA program has been mailed individually to the membership.

In addition to activities just related, other projects and programs of various committees, commissions and the Council of the Association are reported through the written reports in your Delegate's Handbook and in *MISSOURI MEDICINE*.

It is my privilege herein to congratulate the Council on its determination of the feasibility and practicality of paying off the mortgage on the new Headquarters Building so that by the time this report is in the hands of the Delegates to the 1976 MSMA Annual Meeting, the Association will own the Headquarters Building at 113 Madison Street, Jefferson City, Missouri, clear of all financial liens.

Once again, I take this opportunity to express my sincere thanks and appreciation to all of our State Medical Association Headquarters staff for their fine cooperation and diligent service.

RAYMOND MCINTYRE, Executive Secretary

(Referred to the Reference Committee on Reports of Officers.)

Reports of Standing Committees

REPORT OF COMMITTEE ON CONSTITUTION AND BYLAWS

The Committee on Constitution and Bylaws has had no changes referred to it during the past year and, therefore, has no official report to make to the House of Delegates at this time.

JOSEPH CONRAD, Chairman
R. STACY LONG
DONALD R. JUDD
FREDERICK D. PETERSON
DONALD H. BEISNER

(Referred to the Reference Committee on Constitution and Bylaws.)

REPORT OF COMMITTEE ON PUBLICATIONS

The 72nd volume of *MISSOURI MEDICINE* was completed with the publication of the December, 1975 issue. During the year, 13 issues were printed and distributed. Eleven of these issues contained scientific articles, special articles, organizational reports, monthly messages from the presidents of the Association and the Woman's Auxiliary and news and items of interest to members of the medical profession. The July 1 issue contained the official proceedings of the 1975 (117th) Annual Session of the MSMA House of Delegates. The July 15 issue was the annual Membership Directory.

There were two special issues of the Journal. The scientific articles in the April issue were contributed by members of the faculty of the University of Missouri-Columbia School of Medicine and the scientific articles in the December issue were from members of the staff of Ellis Fischel State Cancer Hospital and Cancer Research Center.

During the year, 40 scientific papers and seven special articles were published. Most of the articles were written by Missouri authors.

The Editors wish to express appreciation to all who submitted scientific manuscripts and to all other individuals, institutions and organizations, including the administrations, faculties and publications departments of the University of Missouri in Columbia and Kansas City, St. Louis University, Washington University and Ellis Fischel State Cancer Hospital for their valuable contributions.

At the year's end, the Journal circulation was 5,290.

The complete financial report for the Journal is included in the financial statement of the Missouri State Medical Association for 1975. The report is published in the March, 1976 issue of *MISSOURI MEDICINE* and is included in the Delegate's Handbook.

JOSEPH V. FINNEGAN, Chairman
WILLIAM C. MIXSON
CHARLES S. SHERWIN
BYRON M. STUART
WILFRED E. WOOLDRIDGE

(Referred to the Reference Committee on Reports of Officers.)

REPORT OF COMMITTEE ON LEGISLATIVE AFFAIRS

As might be expected, legislation dealing with the malpractice insurance crisis has dominated the activities of the Committee on Legislative Affairs the past year. The Committee offered its opinions and suggestions for proposed legislation to both the Missouri Senate Special Subcommittee on Malpractice and the Governor's Task Force on Malpractice.

The Senate Committee introduced three bills dealing with (1) reducing the Statute of Limitations on minors; (2) establishing a system of review panels to preview malpractice suits; and (3) bolster the policing powers of the Board of Healing Arts.



In his remarks to the House of Delegates, President R. Allen Chandler stated, "I hope that each of you here will take back to your constituents the messages that come out of this Annual Session."

The Task Force gained sponsors for six malpractice bills. These would include (1) defining Informed Consent; (2) eliminating the Ad Damnum clause; (3) requiring insurance companies to report malpractice suits to the State Division of Insurance; (4) setting up the mechanism to establish a Joint Underwriting Association; (5) allowing the introduction of Collateral Sources testimony in malpractice trials; and (6) establishing a sliding scale for attorney contingent fees.

These bills are currently progressing through the General Assembly and each MSMA member is urged to contact his Representative and Senator to request support for the entire package. Statewide support is needed to gain corrective legislation and your committee cannot accomplish this task—it requires the active involvement of all physicians!

The Committee would like to express its appreciation to the more than 400 physicians and their wives who turned out for the initial hearings on the malpractice bills. Additionally, the Committee would like to acknowledge the assistance provided by those MSMA members who have given of their time to testify on these bills and the many other measures before the General Assembly which would affect the practice of medicine.

The pace of the General Assembly will pick up in the coming weeks and this Committee will need to call on many of you to assist our efforts. We know that MSMA members realize the importance of the malpractice bills and the other medically-related measures and we are confident we can count on your help.

This Committee stands ready to provide you with information, assistance or advice on any matter in the legislative area. We need unity if we are to solve the problems before us today.

JOHN I. MATTHEWS, Chairman
R. ALLEN CHANDLER
ROBERT E. BREGANT
MAX S. FRANKLIN
HUBERT A. RITTER
HOWARD J. McALHANY

(Referred to the Reference Committee on Miscellaneous Affairs.)

REPORT OF THE COMMITTEE ON PLANNING

The work of this committee involves the following:

1. The formulation of long range goals
2. The specification of operational objectives
3. The anticipation of problems
4. The identification and selection of strategies
5. The adoption of appropriate policies

This year, our Committee studied these areas. During its 1974 meeting, the Planning Committee requested that the MSMA President-Elect meet with the Committee to discuss his proposed program for his year as President. It was the feeling of the Committee that, quite possibly, it could be of assistance to him in helping him accomplish some of his objectives.

Dr. Franklin, MSMA President-Elect, outlined briefly for the Committee four subjects that he anticipates including as MSMA objectives for his year as President. Dr. Franklin proposed that the MSMA support Dr. Hubert Ritter's candidacy for AMA Board of Trustees. He suggested that the Council should keep in mind the possible amalgamation of the two St. Louis Medical Societies and the questions and problems of redistricting that will arise when and if this is accomplished.

Dr. Franklin stressed the importance of unified membership. It was mentioned that resolutions calling for unified membership will undoubtedly be introduced at the MSMA 1976 House of Delegates. This matter can then be considered again by the House.

The President-Elect pointed out the importance of lobbying funds and suggested that sufficient funds should always be made available for this purpose.

The MSMA-CME program was discussed in detail and all members of the Association are urged and encouraged to participate in this voluntary program.

During its 1974 meeting, this committee recommended that a study of electronic data processing proposals be made by the Association. The AMA Staff responsible for this program has surveyed the MSMA office and submitted a proposal to the Association. This proposal is presently being reviewed by the Association's CPA and Staff.

In 1974, this Committee recommended recognition awards for certain members of the MSMA. The Committee was informed of the type and number of awards given in 1975, the first year of the awards. Staff asked the Committee for assistance in developing criteria to be used in recognizing members annually. Some of the questions discussed included: What type of plaques should be presented? Should they be identical or should they be distinctive for each type of recognition? Should they be given to members appointed to a Committee or Commission but who never attended or participated in any of the meetings?

The Committee recommends that the Chairman of the Commissions and Committees be utilized to assist staff in developing some criteria for this recognition.

PAUL H. ROTHER, Chairman
FRANCIS X. LIEB
HARRY D. HAAS
CHARLES P. MCGINTY
JAMES C. COPE
T. N. COFER
WILLIAM D. BRADSHAW
J. WILL FLEMING
ORAL B. CRAWFORD
JAMES A. HASEK

(Referred to the Reference Committee on Reports of Officers.)

REPORT OF THE COMMITTEE ON VOLUNTARY HEALTH AGENCIES

Due to the alarming increase of government intervention into the health area, the Committee on Voluntary Health Agencies recommends to all members of the Association that they join the voluntary health agencies of their choice and actively participate in these by providing leadership and guidance.

The Committee on Voluntary Health Agencies feels that this is extremely important since voluntary health agencies represent an alternative to government-directed programs, particularly in areas of research, education and service to those in need.

It is important that voluntary health agencies remain well-supported and strong as this is essential in a pluralistic society and as a counterbalance to government programs.

The Committee would recommend that a questionnaire, perhaps published on the News Report pages of *MISSOURI MEDICINE*, be developed to determine which MSMA members belong to voluntary health agencies and, in addition, which members would be willing to serve on such important bodies as CHP and HSA agencies.

The Committee also recommends that the listing of voluntary health agencies in Missouri continue to be published in the Directory issue of *MISSOURI MEDICINE*. Further exploration of an expanded listing and a more detailed Directory issue will be continued by the Committee.

In conclusion, the Committee voted to meet with representatives of the various voluntary health agencies every other year unless the Chairman issues a call for a special meeting.

WILLIAM C. ALLEN, Chairman
JOSEPH L. FISHER
PAUL S. QUINN
CARL SIEGEL
MELVIN A. CASSEL

(Referred to the Reference Committee on Medical Education and Public Welfare.)

REPORT OF AD HOC COMMITTEE ON MEETING OF COMPONENT MEDICAL SOCIETY REPRESENTATIVES

The meeting of Component Medical Society Representatives was held October 17-18 at the Lodge of the Four Seasons, Lake of the Ozarks. There were 22 representatives of 16 medical societies in attendance. Those present represented a society of ten members as the smallest and one of 1,500 members as the largest.

Several topics were covered in informal discussions. Comments on the Structure and Functions of County Medical Societies centered on the percentage of attendance at society meetings and ways to improve participation. It was stressed that one of the most important society functions should be fulfillment of community needs.

In discussing continuing medical education, all present generally approved the new MSMA voluntary CME program. It also was suggested that legislation to give the State Board of Registration for the Healing Arts the power to require a minimal amount of CME might be considered.

The topic of Malpractice Insurance brought many comments. MSMI was considered by all to be an acceptable interim insurance program, but many felt that improvements could be made by a society-owned mutual assessment company and that corrective legislation is definitely needed in the malpractice area.

Discussion on AMA Membership revealed general agreement that the recent dues increase was necessary and that since the AMA has changed its image to a more aggressive organization, the physicians of Missouri should strongly support the national association.

Other important topics considered were Physician Reimbursement, PSRO's Health Service Agencies and Emergency Medical Services.

An evaluation of the meeting by the participants indicated that all thought it very worthwhile to share ideas with fellow society officers from across the state. It was recommended that the meeting be continued on an annual basis.

JOHN M. LAIRD, Chairman
EDWIN K. BURFORD, JR.
MICHAEL J. CLARKE
AUGUST W. GEISE
WARREN F. WILHELM
R. JOHN TORONTOW
JOHN R. DIXON
RICHARD P. BOWLES

(Referred to the Reference Committee on Reports of Officers.)

Reports of Commissions and Ad Hoc Committees

REPORT OF THE COMMISSION ON PUBLIC AFFAIRS

With the mushrooming of the malpractice insurance crisis, the battles over government regulations and problems with third-party payors, your Commission on Public Affairs took a backseat to the action in 1975.

Some of the items the Commission worked on in the past continued through the year and some of the suggestions from our 1975 report are being carried out.

The Commission's work with the Missouri Division of Health and the Missouri Department of Education on a comprehensive health education program for public schools is continuing. The two state organizations are drawing up proposed programs and we expect the final drafts to be submitted to the MSMA for review and comment.

When the Commission announced the discontinuance of the Annual Public Affairs Conference last year, it recommended the substitution of other practical meetings to fill the needs of MSMA members. Along that line, the MSMA conducted a Meeting for Local Medical Society Representatives last fall and are planning a Practice Management Workshop to be held in conjunction with this Annual Session. The Commission commends this type of activity and encourages its extension.

Responsibility for the meeting of local society representatives has been shifted to this Commission and we intend to provide a format which will encourage wide participation of society officers.

The Commission welcomes ideas and suggestions from all MSMA members.

RICHARD P. BOWLES, Chairman
BYRON E. WATTS
HUBERT A. RITTER
JAMES C. DENNINGHOFF
RICHARD A. SUTTER
FRANCIS M. CORRY
DONALD R. GERMANN
JAMES D. GRABLE
JOSEPH KENDIS
ALLEN P. KLIPPEL
R. A. RITTER, JR.
STANLEY G. HALL
A. J. CAMPBELL
SHARON WAGGONER
WILBER B. SPALDING, JR.

(Referred to the Reference Committee on Miscellaneous Affairs.)

REPORT OF COMMISSION ON MEDICAL ECONOMICS, THIRD PARTY MEDICINE AND GOVERNMENTAL RELATIONS

The Fiscal Year, 1976, prevailing and customary charge data for Medicare is now available through General American. This information will be supplied without charge upon a physician's request. This charge information is itemized into the three geographic areas serviced by General American and listed by specialty and procedure. It indicates the 75th percentile—the actual prevailing charge screen and the 50th percentile that applies to new physicians in their first year of practice in the area. Under the law, the allowed amount for a given service shown on a medical insurance claim is generally the lowest of (1) the actual charge made by the physician for the service; (2) the customary charge generally made for that service by the physician; (3) the *prevailing charge*, which is the charge most physicians in the locality would find acceptable for that service; or (4) the charge that would be recognized by the carrier for its own subscribers or policyholders for the service.

Under the law, just before the beginning of each fiscal year, Medicare reviews the actual charges billed by physicians in the preceding calendar year. The most common of these actual charges by a physician for a service is established as his customary charge for that service. The prevailing charge is then established at the 75th percentile of all individual physicians' customary charges for each service. In effect, the prevailing charge for any given service is the amount which is high enough to cover in full the customary charges of those physicians whose billings accounted for at least 75% of all claims for that service in the locality in the preceding calendar year.

The Commission discussed the reimbursement to hospitals by St. Louis Blue Cross. Presently, under negotiated contracts, reimbursement is made at the rate of 103% of per diem costs.

An ad hoc committee was appointed to work with representatives of the Hospital Association and to consult with St. Louis Blue Cross. This committee also will obtain information on the impact of the federal government's cost-containment program on hospital reimbursement.

The following resolutions were referred to our Commission by the MSMA House of Delegates in 1975:

Resolution # 2—Invasion of Patient Privacy by Governmental Agencies. We call your attention to the work of the PSRO Data Task Force Steering Committee. We also recommend the adoption of the "Patient Privacy" resolution before the House of Delegates as the MSMA position on confidentiality of medical records.

Resolution # 15—Development of Individual Practice Associations. The Commission recommended that staff develop an article on Individual Practice Associations and print it in *MISSOURI MEDICINE* to inform the membership of this alternative to HMOs.

Resolution # 26—Third Party Payers. We accepted this resolution and directed staff to develop a letter that could be used in replying to Medicare carriers when this quotation is used in their letter to the beneficiary.

Resolution # 27—Patient Education. This resolution adopts guidelines for third party reimbursement for patient education.

The Commission recommends that this MSMA policy be disseminated in the following manner: 1. If the County Medical Society is staffed, information will be forwarded through the staff and the society officers to hospital staffs. 2. If the County Medical Society is not staffed, information will be forwarded to the county officers and ascertain from them if the information may be sent directly to hospital medical staffs in their area.

Resolution # 30—Uniform Insurance Claim Form. The Commission notes that the objectionable statement contained in the Uniform Insurance Claim Form appears to have been eliminated in the revised claim form that is now available.

Resolution # 34—Interest Charged on Unpaid Accounts. The Commission accepted for information the report of the AMA Judicial Council adopted by the MSMA House of Delegates concerning the charging of interest on unpaid accounts. It is noted that this information is now contained in the MSMA Policy Manual.

Resolution # 38—PL 92-603 (PSRO). The MSMA House of Delegates Reference Committee that heard this resolution made the following statement:

"The Reference Committee recommends that Resolution # 38 be referred to the Commission on Medical Economics and Third Party Medicine for further study and clarification and that that Commission's report be disseminated to the members of the MSMA." The resolution basically contains three main points. The first point concerned the implementation of the pre-admission certification requirements. It was pointed out that the AMA had been successful with its suit and, therefore, no further action was needed on this section of the resolution. The second portion of the resolution requested that the Association advise all practicing physicians and hospital medical staffs of option 3 which provides that if a staff committee of physicians of a hospital, etc., has not been established to carry out all of the utilization review functions prescribed, a group or committee may be sponsored and organized to perform the utilization review functions by the Secretary of HEW. The Commission recommends that members be notified of this provision. The third point of this resolution requested that the MSMA insist on the repeal of PSRO. The Commission recommends that this portion of the resolution not be adopted. It further recommends that the MSMA's policy statement on PSRO be reiterated for the benefit of MSMA members.

The Commission discussed a letter and statement on the billing form provided the insured and the physician by an insurance company that provides coverage for health insurance in Missouri. This statement to patients provides:

"If the above benefits paid for surgery, surgical assistance, and/or anesthesiology do not pay the doctor's charges in full, a dispute exists regarding the fees charged and the reasonable and customary fee as indicated by BFG Surgical Consultants. Your doctor has been notified of this. If you have not made a previous agreement with him regarding the amount of his fee, and you decide not to pay this difference, any attempt by the doctor to collect any remaining balance through legal proceedings should be reported through personnel immediately for assistance."

The letter to the physician outlines that benefits are based on reasonable and customary fees for the services rendered and that a physician has the right to charge whatever amount he feels proper, but the benefit payable does not equal the fee charged and it gives the upper limits of the range of fees for the procedure performed.

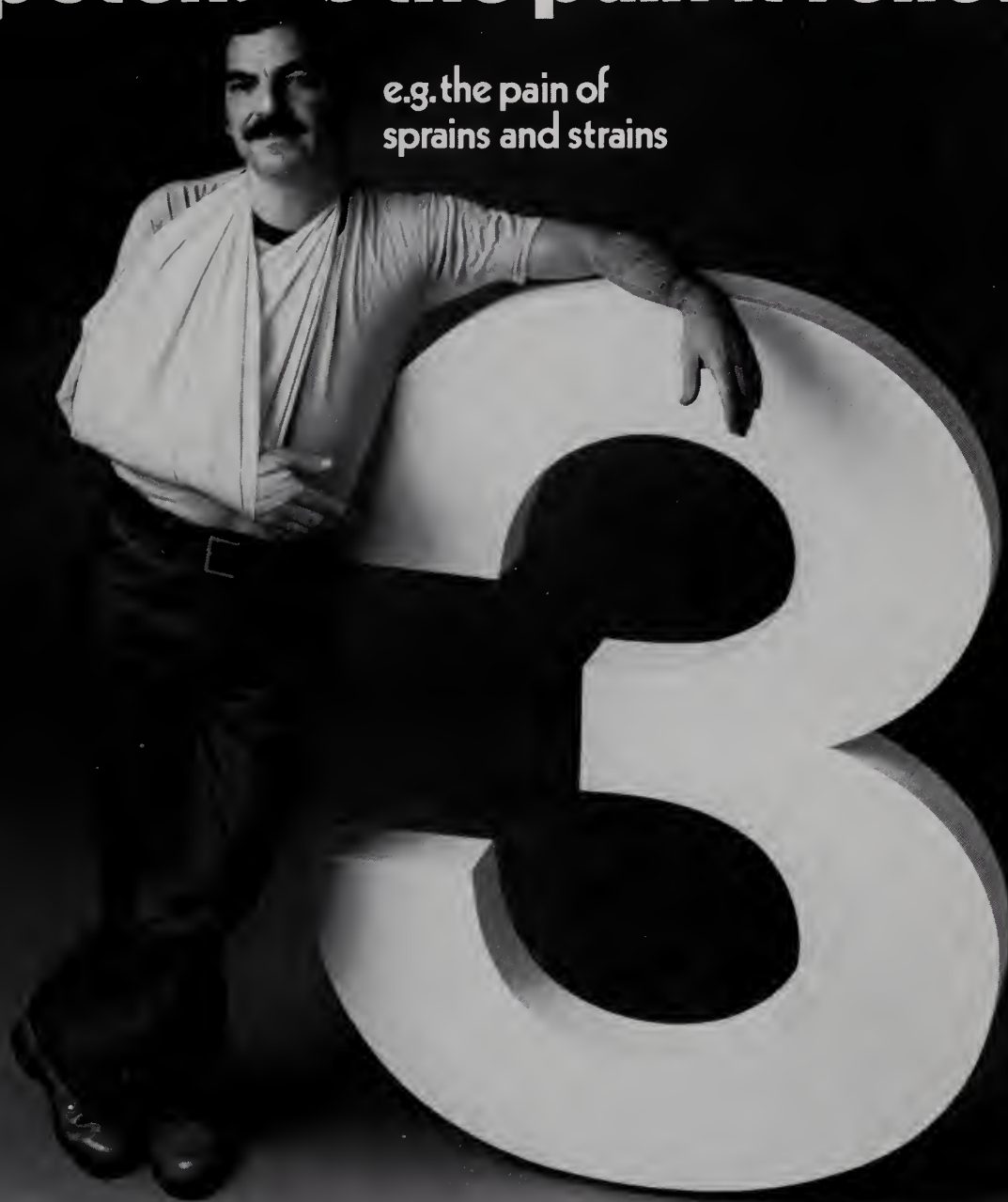
The Commission recommended to the Council that immediate action be taken to inform the insurance company that the statement to the patient of costs is unethical and that it should be discontinued. It further recommends that the MSMA adopt a policy statement against this type of letter.

The Commission discussed Dr. Heeb's report of the Physician Advisory Subcommittee to the Division of Family Services (Medicaid) that is attached. During the discussion,

No.3

As potent as the pain it relieves.

e.g. the pain of
sprains and strains



NOT TOO LITTLE

- as potent as the pain you need to relieve in patients with fractures, sprains, strains, wounds, contusions, and the pain of surgical convalescence
- unlike acetaminophen/codeine combinations, it does not sacrifice anti-inflammatory action

NOT TOO MUCH

- potent—yet not excessive
- addiction liability low

NOT TOO EXPENSIVE

- brand-name quality, yet reasonable in cost
- readily available in both hospital and local pharmacies

CONVENIENCE

- telephone Rx in most states, up to 5 refills in 6 months at your discretion (where state law permits)

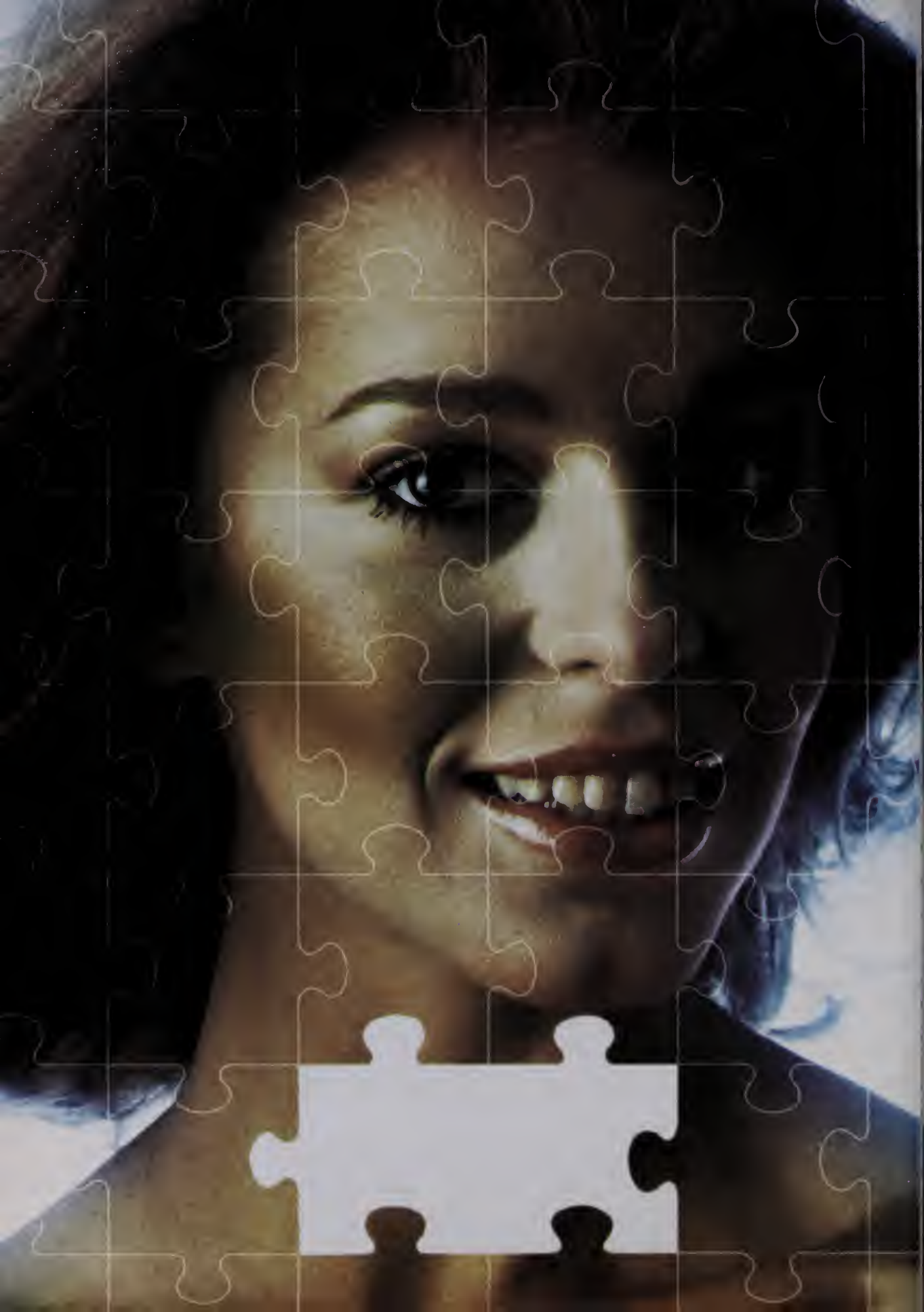
EMPIRIN[®] COMPOUND WITH CODEINE NO. 3

codeine phosphate* (32.4 mg) gr ½
Each tablet also contains: aspirin gr 3½, phenacetin gr 2½, caffeine gr ½. *Warning—may be habit-forming



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SYNTHROID® (Sodium Levothyroxine, U.S.P.) Flint is not derived from any animal gland source. It is a pure synthetic. Every batch of SYNTHROID (Sodium Levothyroxine) is of controlled potency. And, it provides your patients with everything they need for complete thyroid replacement therapy.

T4, T3, or both? SYNTHROID (Sodium Levothyroxine, U.S.P.) Flint is T4 which is converted to T3 at the cellular level, providing a physiologic source and optimal amount of T3 to meet metabolic needs for your hypothyroid patients. Because of the slower and steadier onset of action, the possibility of sudden metabolic surges is reduced with SYNTHROID therapy.

SYNTHROID medication is practical and economical for long-term therapy. A recent study of 44 hypothyroid patients indicates that 89 percent were maintained with doses of T4 (SYNTHROID) between 100 mcg. and 200 mcg. (0.1 mg. and 0.2 mg.) per day.¹

If you're interested we'd be pleased to send clinical data. Write representative.

in additional information, you a portfolio of pertinent or contact your Flint

Synthroid®
(Sodium
Levothyroxine,
U.S.P.) Flint



See reverse side for full prescribing information

1. Stock, J. M., Surks, M. I., and Oppenheimer, J. H. Replacement dosage of L-thyroxine in hypothyroidism. A re-evaluation. New Engl. J. Med. 290:529-33, 1974.



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DIVISION OF TRAVENOL LABORATORIES, INC.
Deerfield, Illinois 60015

Synthroid®

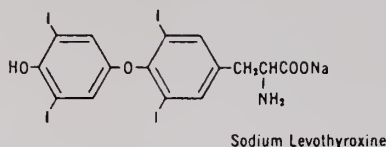
(Sodium Levothyroxine. U.S.P.) Flint

Eliminates many of the uncertainties of desiccated thyroid therapy



Synthroid Tablets—for oral administration
Synthroid for Injection—for parenteral administration

Description: SYNTHROID (sodium levothyroxine) **Tablets** and SYNTHROID **Injection** contain synthetic crystalline sodium levothyroxine (L-thyroxine). L-thyroxine is the principal hormone secreted by the normal thyroid gland.



Actions: SYNTHROID (sodium levothyroxine) **Tablets**, taken orally, provide hormone that is readily absorbed from the gastrointestinal tract. SYNTHROID **Injection** is effective by any parenteral route. Following absorption, the synthetic L-thyroxine provided by SYNTHROID products cannot be distinguished from L-thyroxine that is endogenously secreted. Each is bound to the same serum proteins and each exhibits a six to seven day circulating half-life in the euthyroid individual.

Both SYNTHROID products will provide L-thyroxine as a substrate for physiologic deiodination to L-triiodothyronine. Therefore, patients taking SYNTHROID products will demonstrate normal blood levels of L-triiodothyronine even when the thyroid gland has been surgically removed or destroyed by radiiodine. Administration of levothyroxine alone will result in complete physiologic thyroid replacement.

Indications: SYNTHROID (sodium levothyroxine) products serve as specific replacement therapy for reduced or absent thyroid function of any etiology. SYNTHROID **Injection** can be used intravenously whenever a rapid onset of effect is critical, and either intravenously or intramuscularly in hypothyroid patients whenever the oral route is precluded for long periods of time.

Contraindications: There are no absolute contraindications to SYNTHROID (sodium levothyroxine) therapy. Relative contraindications include acute myocardial infarction, uncorrected adrenal insufficiency and thyrotoxicosis. (See WARNINGS)

Warnings: Patients with cardiovascular diseases warrant particularly close attention during the restoration of normal thyroid function by any thyroid drug. In such cases, low initial dosage increased slowly by small increments is indicated. Occasionally, the cardiovascular capacity of the patient is so compromised that the metabolic demands of the normal thyroid state cannot be met. Clinical judgment will then dictate either a less-than-complete restoration of thyroid status or reduction in thyroid dosage.

Endocrine disorders such as diabetes mellitus, adrenal insufficiency (Addison's disease), hypopituitarism and diabetes insipidus are characterized by signs and symptoms which may be diminished in severity or obscured by hypothyroidism. SYNTHROID (sodium levothyroxine) therapy for such patients may aggravate the intensity of previously obscured symptoms and require appropriate adjustment of therapeutic measures directed at these concomitant disorders.

Thyroid replacement may potentiate the effects of anticoagulants. Patients on anticoagulant therapy should have frequent prothrombin determinations when instituting thyroid replacement to gauge the need to reduce anticoagulant dosage.

Precautions: Overdosage with any thyroid drug may produce the signs and symptoms of thyrotoxicosis, but resistance to such factitious thyrotoxicosis is the general rule. With SYNTHROID (sodium levothyroxine) **Tablets**, the relatively slow onset of action minimizes the risk of overdose but close observation in the weeks following institution of a dosage regimen is advised. Treatment of thyroid hyperactivity induced by oral medication is confined to interruption of therapy for a week, followed by reinstitution of daily therapy at an appropriately reduced dosage.

Adverse reactions: Adverse reactions are due to overdose and are those of induced hyperthyroidism.

Dosage and administration: For most adults, a final dosage of 100 mcg (0.1 mg) to 200 mcg (0.2 mg) of SYNTHROID (sodium levothyroxine) **Tablets** daily will restore normal thyroid function and only occasionally will patients require larger doses. Failure to respond adequately to a daily oral intake of 400 mcg (0.4 mg) or more is rare and should prompt reconsideration of the diagnosis of hypothyroidism, special investigation of the patient in terms of malabsorption of L-thyroxine from the gastrointestinal

tract or poor adherence to therapy.

The concomitant appearance of other diseases, especially cardiovascular diseases, usually dictates a replacement regimen with initial doses smaller than 100 mcg/day (0.1 mg).

In otherwise healthy adults with relatively recent onset of hypothyroidism, full replacement dose of 150 mcg (0.15 mg) or 200 mcg (0.2 mg) has been instituted immediately without untoward effect and with good therapeutic response. General experience, however, favors a more cautious approach in view of the possible presence of subclinical disorders of the cardiovascular system or endocrinopathies.

The age and general physical condition of the patient as well as the severity and duration of hypothyroid symptoms determine the starting dosage and the rate of incremental dosage increase leading to a final maintenance dosage. In the elderly patient with long standing disease, evidence of myxedematous infiltration and symptomatic, functional or electrocardiographic evidence of cardiovascular dysfunction, the starting dose may be as little as 25 mcg (0.025 mg) per day. Further incremental increases of 25 mcg (0.025 mg) per day may be instituted at three to four week intervals depending on patient response. Conversely, otherwise healthy adults may be started at higher daily dosage and raised to the full replacement dosage in two to three weeks. Clearly it is the physician's judgment of the severity of the disease and close observation of patient response which determines the rate of dosage titration.

Laboratory tests to monitor thyroid replacement therapy are of limited value. Although measurement of normal blood levels of thyroxine in patients on replacement regimens frequently coincides with the clinical impression of normal thyroid status, higher than normal levels on oral replacement of levothyroxine occasionally occur and should not be considered evidence of overdosage per se.

In all cases, clinical impression of the well-being of the patient takes precedence over laboratory determination in determining the appropriate individual dosage.

In infants and children, there is a great urgency to achieve full thyroid replacement because of the critical importance of thyroid hormone in sustaining growth and maturation. Despite the smaller body size, the dosage needed to sustain a full rate of growth, development and general thriving is higher in the child than in the adult, as much as 300 mcg (0.3 mg) to 400 mcg (0.4 mg) per day.

In myxedema coma or stupor, without concomitant severe heart disease, 200 to 500 mcg of SYNTHROID **Injection** may be administered intravenously as a solution containing 100 mcg/ml. Although the patient may show evidence of increased responsiveness within six to eight hours, full therapeutic effect may not be evident until the following day. An additional 100 to 300 mcg or more may be given on the second day if evidence of significant and progressive improvement has not occurred. Like the oral dosage form, SYNTHROID **Injection** produces a predictable increase in the circulating level of hormone with a long half-time. This usually precludes the need for multiple injections but continued daily administration of lesser amounts intravenously should be maintained until the patient is fully capable of accepting a daily oral dose.

In the presence of concomitant heart disease, the sudden administration of such large doses of L-thyroxine intravenously is clearly not without its cardiovascular risks. Under such circumstances, intravenous therapy should not be undertaken without weighing the alternative risks of the myxedema coma and the cardiovascular disease. Clinical judgment in this situation may dictate smaller intravenous doses of levothyroxine.

SYNTHROID **Injection** by intravenous or intramuscular routes can be substituted for the oral dosage form when ingestion of SYNTHROID **Tablets** is precluded for long periods of time.

How Supplied: SYNTHROID (sodium levothyroxine) **Tablets** are supplied as scored, color-coded compressed tablets in 6 concentrations: 25 mcg (0.025 mg)—orange . . . 50 mcg (0.05 mg)—white . . . 100 mcg (0.1 mg)—yellow . . . 150 mcg (0.15 mg)—blue . . . 200 mcg (0.2 mg)—pink . . . 300 mcg (0.3 mg)—green.

SYNTHROID (sodium levothyroxine) for **Injection** is supplied in 10 ml vials containing 500 mcg of lyophilized active ingredient and 10 mg of Mannitol, U.S.P. A separate 5 ml vial containing Sodium Chloride Injection, U.S.P. is provided as a diluent.

Directions for reconstitution: Reconstitute the lyophilized sodium levothyroxine by aseptically adding 5 ml of the Sodium Chloride Injection, U.S.P. to the vial. Shake vial to insure complete mixing. Use immediately after reconstitution. Discard any unused portion.

U.S. Pat. 2,889,363

 **FLINT LABORATORIES**
DIVISION OF TRAVENOL LABORATORIES, INC.
Deerfield, Illinois 60015

January 1975

several other questions were raised by those present concerning the Title XIX program. The agency was contacted and furnished the Commission with the following information. The publication of the Medicaid Handbook has been delayed. It should be in the hands of physicians within 90 days. It was determined that non-covered services under Medicaid will be specified in the Handbook. Additional information on the Handbook is contained in paragraph 3 of Dr. Heeb's report. The Division of Family Services requested physicians' cooperation in determining if the Welfare recipient does have private insurance. The Division of Family Services recovers a large amount of money from Welfare recipients who also have insurance.

The Commission recommended that Dr. Heeb's Ad Hoc Committee discuss the following with the Division of Family Services:

Resolved, That all fees collected from insurance companies by the Division of Family Services under the Medicaid program be used to reimburse the physician performing the service to the extent of his usual fee for the service performed. This would allow the physician to recover up to the amount of his usual fee from the third party, even though they have been reimbursed under Medicaid for the service performed.

Dr. Heeb's Committee also was asked to determine if the money recovered by the Division of Family Services is deposited into general revenue or is retained by the Division of Family Services as further funding for the Medicaid Program. If it is determined that these funds are going into general revenue, Dr. Heeb's Committee is to request that this be changed.

The policy of coordination of benefits under health and accident policies was discussed. It was requested that a report on coordination of benefits be prepared by staff and furnished to the members of the Commission.

The Commission discussed the recent CHAMPUS reimbursement changes promulgated by the Department of Defense through St. Louis Blue Shield as fiscal administrator. The directive changes the CHAMPUS program from a UCR plan to one that will reimburse at the 75th percentile based on 1974 prevailing charges. It was pointed out that this is a further unilateral action of a third party which will reduce medical care for patients who Missouri physicians are presently treating.

The Commission recommended that all members be notified of this change in CHAMPUS regulations; and that it is a unilateral decision of a third party payer which further imperils the good medical care of a very deserving segment of our citizens. We recommended that this entire subject be referred to the AMA for further referral to the new Division of Negotiations.

Legislation affecting the Medicaid program that has been introduced into this session of the General Assembly was noted. The Commission recommends that the Legislative Committee and the Council support the "open formulary" bill that has been introduced by Dr. Roderick. The Commission briefly discussed payments to chiropractors under Title XIX. This legislation carries a fiscal note of \$2,800,000. Also discussed was legislation that would provide medical care for the near needy. The fiscal note on this bill is approximately \$26,000,000. The Commission defers any formal action on these bills. It was felt that the fiscal notes contained in this legislation would deter their passage this Session.

The proposed amendments to Medicare and Medicaid as outlined in the AMA Board of Trustees Report CC were discussed at length. The Commission recommended that MSMA share the concerns expressed by the Board of Trustees with appropriate members of the Missouri Congressional Delegation.

CHARLES W. CHASTAIN, Chairman
STANLEY S. PETERSON
JOHN R. ESTHER



President-Elect Max S. Franklin addressed the House of Delegates and commented upon important matters to be considered by the Delegates.

JAMES O. LOTTES
R. PHILLIP ACUFF
A. E. BRAVERMAN
JOHN TORONTOW
E. WARREN ALLEN
JOHN M. LAIRD
JOHN A. GRIFFITH, JR.
HERBERT C. WIEGAND
MAX A. HEEB
KENNETH K. KEOWN
E. J. CUNNINGHAM, JR.
RAE W. FROELICH

REPORT OF PHYSICIANS ADVISORY SUBCOMMITTEE TO DIVISION OF FAMILY SERVICES (MEDICAID)

A preliminary estimate for an increased budget for fiscal 1976-1977 for the Division of Family Services is \$184,000,000 as compared to \$123.7 million for 1975-1976. Most of the increased costs will go for increased inpatient hospitalization and nursing homes. Although physician's services included in the budget last year were only \$13,000,000, actually \$18.7 million was spent. This was primarily due to utilization which increases about 15% per year. The physicians services expenditure of the entire budget is usually about 15%. The request in this year's budget for physicians services is \$17.8 million. Considerable discussion was held regarding the need for an increased fee per service rendered by the physician to reflect the increased cost of living. Although it was agreed that the increased cost of living was more than 10%, this was considered to be a factor. However, it also was realized that a 10% increase per service across the board would increase the budget for physicians services in excess of 20%. The final recommendation was that the office fees be increased one dollar in category I and III and leave the other fees as they are. It was hoped that this would make it more attractive for other physicians to enter into the Medicaid program since it has been the general feeling that 90% of the care is rendered by less than 50% of the physicians in the Medicaid program. It was pointed out that the individual physicians on the Advisory

Board were in no way in a position to act in the capacity of a negotiator of fees of all the physicians of the MSMA and were acting as individual physician advisors to the Division of Welfare.

A Medicaid Handbook is nearing completion which will not only have the covered services and the amount paid for each, but also will give some kind of an indication about proper ways of filing, as well as an indication as to what uncovered services would be for which the patient may be billed. There also is to be an effort to instruct the patients through the Welfare offices in the reality that the card did not cover all services and that they may be expected to be billed for those services that were not covered.

It was the consensus of opinion that certified family practitioners recognized by the AMA and certified general practitioners recognized by the AOA should be considered as specialists in the office and generally in the fields of OB-GYN, pediatrics and general medicine. They would not be considered specialists, however, in such fields as complicated as cardiology and major surgery.

It also was pointed out that individuals who were considered specialists in general surgery were not specialists when treating the common cold and would not be expected to receive a specialist fee.

It was the general consensus that the long-awaited Medicaid Handbook would help to break down many of the problems with communication that exists between the providers and the Division of Family Services. It also was suggested that an enterprise telephone line also might help to improve communication and handling of claims.

The Division of Family Services was also asked for the increase in physicians individual fees for services—increase paid by Medicaid, 1971-1974. This information was not readily available but would be reported.

There was considerable concern on the part of the physicians regarding individuals who were thought to be employable but were still on the Welfare rolls as well as concern over children who were maintained on Medicaid as well as the mother when the new stepfather was apparently an adequate provider. It was pointed out that there was a bill being introduced that would address itself to this problem and if passed, would save the Division of Family Services about \$9,000,000 a year. It also was pointed out that it had a poor chance of being passed.

MAX A. HEEB, Chairman

(Referred to the Reference Committee on Resolutions.)

REPORT OF THE COMMISSION ON CONTINUING EDUCATION AND HEALTH MANPOWER

The Commission on Continuing Education and Health Manpower appointed three Ad Hoc Committees as follows: Ad Hoc Committee on Continuing Medical Education, Ad Hoc Committee on Health Manpower and Ad Hoc Committee—118th Annual Session. These Ad Hoc Committees implemented directives of the MSMA Council and worked closely with allied health services in the study and solution of problems referred. Details of Committee action can be found in the individual Ad Hoc Committee Annual Reports published herein.

The Commission has worked closely with the Commission on Interspecialty Medicine to fully implement the MSMA's Voluntary Continuing Medical Education Program as of Jan. 1, 1976 and in the development of Scientific Sessions for the 118th Annual Session. During the MSMA's 1975 Annual Session, the American Medical Association approved the scientific portion of the program for Category 1 credit.

GEORGE H. LADYMAN, Chairman
H. PETER EKERN

RICHARD HEDGES
M. KENTON KING
ROBERT DETTMER
ROBERT B. DEITCHMAN
MARVIN A. SINGLETON
W. THOMAS MORGAN, JR.
W. WAYNE BOYDSTON
ANDREW McCANSE
A. SHERWOOD BAKER
RICHARD J. DAMES
JOHN C. SOUCY
CHARLES A. WORLEY
ROLAND E. LOHMAR

REPORT OF THE AD HOC COMMITTEE —118th ANNUAL SESSION

For the fifth year in succession, the Committee invited the respective medical specialties to sponsor and develop Scientific Sessions for the MSMA 118th Annual Session on April 1-4, 1976. The Committee is pleased to report that the response was very gratifying with 25 90-minute sessions being sponsored by 14 specialties, including one General Session and two programs presented by voluntary agencies.

The Program Committee invited the medical specialties to also schedule their business and social functions during the MSMA Annual Session.

This Committee would like to express appreciation to the official representatives serving on the MSMA Commission on Interspecialty Medicine for their cooperation and interest.

GEORGE H. LADYMAN, Chairman
ANDREW McCANSE
RICHARD J. DAMES
WILLIAM C. ALLEN
W. WAYNE BOYDSTON
JOHN M. LAIRD, JR.
JACK WILES
ROLAND E. LOHMAR

REPORT OF THE AD HOC COMMITTEE ON CONTINUING MEDICAL EDUCATION

During the year of 1975, the Ad Hoc Committee on CME is pleased to report the accomplishment of several essential steps in the implementation of the MSMA Voluntary CME Program. The Missouri State Medical Association has been approved by the AMA Council on Medical Education to serve as an accrediting body for institutions and organizations that provide CME programs in the state of Missouri. After the AMA site team had an opportunity to review the process in which the Commission on Interspecialty Medicine and the Ad Hoc Committee on CME developed the program for the 117th Annual Session, they approved the scientific portion of the MSMA Annual Session for Category 1 credit.

A third major accomplishment of this Committee was the approval of Doctors Hospital, Inc., Poplar Bluff, as the first hospital to be recognized by the MSMA for its continuing medical education program. To date, the response that has been received from other hospitals and organizations indicates a desire to obtain continuing medical education from institutions and organizations in a physician's own local community.

As of Jan. 1, 1976, the MSMA has fully implemented its Voluntary Continuing Medical Education Program.

There are two facets to the MSMA Voluntary CME Program: (1) a program for accrediting institutions and organizations in Missouri that provide continuing medical education; and (2) a program that would give physicians recognition on programs in continuing medical education. The

MSMA office has a mechanism in place to record activities of physicians participating in CME in or near their local communities. Each active MSMA member has been forwarded a file folder that will provide for him an opportunity of recording, at his convenience, his continuing medical education activities. These folders are to be returned to the MSMA office on a periodic basis and the physician will be supplied with another folder to continue his documentation of his activities. In this manner, each physician will be able to obtain an accurate up-to-date record of his activities.

This Committee would like to express its appreciation for the cooperation and interest of the Commission on Interspecialty Medicine.

GEORGE H. LADYMAN, Chairman
JOHN R. DIXON
PATRICIO AVILA
KENNETH BRUNS
JOHN C. SOUCY
ROLAND E. LOHMAR
W. WAYNE BOYDSTON
MARTIN CROW
MARVIN A. SINGLETON
BERNARD DRAPER
A. SHERWOOD BAKER
THOMAS J. MITCHELL
ARNOLD BLOCK

(Referred to the Reference Committee on Medical Education and Public Welfare.)

REPORT OF COMMISSION ON MEDICAL-LEGAL AFFAIRS

Most of the members of our Commission attended the hearings of the Senate Select Committee on Medical Malpractice that were held throughout the state during 1975. Many of us presented data and testimony to the Committee. Several also attended the Senate and House Committee hearings that were held in January of 1976 in Jefferson City.

During a regularly scheduled meeting held conjointly with similar committees of the Missouri Bar Association and the Missouri Association of Osteopathic Physicians and Surgeons, voluntary pre-trial screening panels were discussed at length.

Representatives from the Kansas City and St. Louis areas, where panels now exist, reported on their operation and effectiveness. The attorneys and physicians reported on their respective panels mentioned several cases that were not filed or pursued after a panel hearing.

All reports indicated that the panels have been well received by the physicians, attorneys and patients. During the discussion, it was noted that most professional liability carriers do oppose the voluntary panel system.

Our Commission recommends that the present panels be retained and additional panels be established in the Cape Girardeau-Poplar Bluff and the Mid-Missouri area. Then if the Joplin physicians and attorneys could join with the panel plan presently being initiated in Greene County, most of the state would have a voluntary panel available to screen malpractice cases before they go to court.

During the meeting, several of those present mentioned areas where a breakdown in inter-professional relations between physicians and attorneys has occurred. Hopefully, the conjoint meetings will aid in resolving some of these problems.

We also are recommending that MISSOURI MEDICINE consider publishing some of the pertinent Missouri Statutes each month. These should include the medical practice act, current laws on treatment of minors and mental hospital commitment procedures.

IRVING H. CLARK, Chairman
DAVID W. BROWN



Mrs. William R. McPhee, President of the Woman's Auxiliary to the MSMA, presented a detailed report of the Auxiliary's projects and accomplishments in 1975-1976.

FRANCIS X. PALETTA
FREDERICK J. MCCOY
BERNARD DRAPER
ROBERT L. WILLCOXON
JOSEPH S. COPE
JEROME I. SIMON
VICENTE D. DELES
GEORGE P. WILSON
HAROLD B. RAPP
WILLIAM R. MCPHEE
GEORGE L. HAWKINS, JR.
NOEL R. WEYERICH
RICHARD O. CRAIG

(Referred to the Reference Committee on Constitution and Bylaws.)

REPORT OF THE COMMISSION ON INTER SPECIALTY MEDICINE

Medical specialties have been polled for sponsorship of one or more Scientific Sessions at the 118th Annual Session. This Commission is pleased to report that the following specialty groups are sponsoring at least one 90-minute and some as many as four 90-minute sessions at the 118th Annual Session. They are as follows:

Allergy, Surgery, Internal Medicine, Thoracic, Pediatrics, Pathology, Psychiatry, Ophthalmology, Obstetrics-Gynecology, Anesthesiology, Physical Medicine & Rehabilitation, Dermatology, Radiology and Ear, Nose & Throat.

Specialty representatives have referred to their respective organizations for advice as to their willingness to participate in the MSMA Voluntary CME Program. The MSMA has been working with several of the specialties listed below in order that they can be accredited.

Allergy, Anesthesiology, Dermatology, Pathology, Internal Medicine, Neurological Surgeons, Pediatrics, Obstetrics-Gynecology, Ear, Nose & Throat, Surgery, Radiology and Urology.

CYRIL COSTELLO, Chairman
JEAN A. CHAPMAN
DONALD J. DICKLER

LARRY MILLIKAN
FORREST H. KENDALL
LOIS C. WYATT
ROBERT BREGANT
AUGUST W. GEISE
WALLACE STACEY
ANWAR SHAH
GLEN L. McELROY
HENRY C. ALLEN
DON OVEREND
FRANZ U. STEINBERG
WILLIAM H. McALISTER
CHARLES L. ROPER
KARL J. KURTZ
ROBERT BROOKES
EARL ROBERT SCHULTZ
FLORENCE E. MACINNIS
G. LYNN KRAUSE

(Referred to the Reference Committee on Medical Education and Public Welfare.)

THE COUNCIL

The Speaker stated that the portions of the reports of Council Meetings which are referred to Reference Committees are preceded by a black square (■) and are concluded with the committee assignment, which is set in bold face type.

Meeting of April 20, 1975

■ R. Allen Chandler, M.D., Kansas City, President, called the meeting to order. Those present were Drs. Chandler; Max S. Franklin, St. Louis; John I. Matthews, Jefferson City; Richard V. Bradley, St. Louis; James C. Cope, Columbia; Robert A. Slickman, Kansas City; James T. Brown, Springfield; Howard J. McAlhany, Springfield; John N. Martin, St. Joseph; J. Russell Comer, Hannibal; Donald R. Judd, St. Louis; Louis P. Hetlage, Troy; Robert E. Bregant, Jefferson City; Andrew McCanse, Kansas City; Claude W. Cooper, Thayer; Eugene T. Hansbrough, Poplar Bluff; Rae W. Froelich, Lebanon; Stanley S. Peterson, Springfield; Frederick D. Peterson, St. Louis; William C. Allen, Columbia; Messrs. Allen D. Smith, Kansas City; Hollister S. Smith, St. Louis; Roger Weis, Kansas City; Ray McIntyre, Royal O. Cooper, Cork Swarnes, Ron Ellison, Staff.

ELECTION OF OFFICERS

President Chandler opened the meeting and introduced the following new Councilors: Drs. Donald R. Judd, St. Louis, 3rd District, and J. Russell Comer, Hannibal, 2nd District. He also extended congratulations to those Councilors who were reelected—Dr. Louis P. Hetlage, 4th District; Dr. William D. Bradshaw, 6th District; Dr. Howard J. McAlhany, 8th District and Dr. Eugene T. Hansbrough, 10th District.

Dr. Hetlage introduced Dr. Frederick D. Peterson, St. Louis, the new Vice-Councilor for the 4th District.

Dr. Howard J. McAlhany was elected Chairman of the Council and, thereby, became the presiding officer.

Dr. John Martin was elected Vice-Chairman of the Council, Dr. John I. Matthews was elected Secretary and Dr. Richard Bradley was elected Treasurer.

AMA BOARD OF TRUSTEES

Dr. Froelich stated that the AMA Delegates had two resolutions for the AMA House on which they would like Council approval. The first resolution reads as follows:

Resolved, That the House of Delegates of the American Medical

Association instruct the Board of Trustees to direct its major or an equal thrust of activity toward legislative, economic and field service activity; and be it further

Resolved, That any further economies be made in the area of transference of fiscal monetary responsibility for publications to the respective publication specialty group with the elimination of PRISM and other non-vital publications.

Dr. Froelich indicated that the AMA's financial problems were under study by a Committee and that this committee is to report back to the House of Delegates at its Annual Meeting. Missouri's AMA Delegates would like to have the above stated resolution available if the committee does not come up with satisfactory measures in regard to AMA financial problems.

A discussion was held in regard to whether the direct reference to PRISM should be left in the resolution. Motion was made, seconded and carried that the above stated resolution be accepted as given.

Dr. Froelich also introduced the following resolution:

Resolved, That the recent action of the AMA Board of Trustees in interposing legal action between the Department of Health, Education and Welfare's regulation requiring utilization review of hospital admission of our patients is commended; and be it further

Resolved, That the AMA Board of Trustees be encouraged to continue to take definitive action between any further legislation or regulation which interferes with the ability of our patients to obtain our services.

Motion was made, seconded and adopted that this resolution be accepted as written.

FINANCE COMMITTEE

Dr. McAlhany made the following appointments to the Finance and Budget Committee for 1975-1976: Drs. Bradley, Chairman; Chandler, Franklin, Martin, Hetlage and McAlhany.—Referred to Reference Committee on Resolutions.

VICE-COUNCILOR

■ Dr. Hetlage indicated that the Committee on Constitution and Bylaws had suggested that if a Councilor could not attend a Council meeting, he could appoint a designee to attend the Council meeting in his place. He asked whether or not this Vice-Councilor could attend all Council meetings and if this Vice-Councilor could vote in the absence of the Councilor.

Dr. McAlhany reported that the Vice-Councilor is welcome to attend all Council meetings.

Dr. Cope stated that he felt that official recognition should be given to Mrs. Martha McIntyre, Mrs. Karen Swarnes, Mrs. Carol Ellison and Mrs. JoAnn Wilson for their work and participation in the Annual Session.

Motion was made, seconded and carried that the official thanks of this organization be extended to these ladies.—Referred to Reference Committee on Constitution and Bylaws.

BOARD OF HEALING ARTS

■ Dr. Martin, a member of the State Board of Registration for the Healing Arts, reported that problems had recently arisen as to who could hire and fire the Executive Secretary of the Board and who had control of the investigators for the Board. He reported that the Board felt that they, not the Director of the Department of Consumer Affairs, Regulation and Licensing, had the right to choose their Executive Secretary and the right to control the activities of the investigators.

Dr. Martin asked that if the Board should file suit in this matter, could the Board expect any support from the Missouri State Medical Association.

Motion was made, seconded and carried that in the event the Board of Registration for the Healing Arts files suit in this situation, the Board would have the support of the Missouri State Medical Association.

NEXT COUNCIL MEETING

The next meeting of the Council will be held on Friday night, May 30, and Saturday, May 31 at the Ramada Inn in Jefferson City. Chairman McAlhany indicated that the same format will be followed as in the past.

The meeting was adjourned.—Referred to Reference Committee on Miscellaneous Affairs.

Meeting of May 31, 1975

■ Howard J. McAlhany, M.D., Springfield, Chairman, called the meeting to order. Those present were Drs. McAlhany; R. Allen Chandler, Kansas City; Max S. Franklin, St. Louis; Richard V. Bradley, St. Louis; John I. Matthews, Jefferson City; John N. Martin, St. Joseph; J. Russell Comer, Hannibal; Donald R. Judd, St. Louis; Louis P. Hetlage, Troy; Robert Tanner, Jefferson City; Andrew McCanse, Kansas City; C. W. Cooper, Thayer; E. T. Hansbrough, Poplar Bluff; Stanley S. Peterson, Springfield; George Thoma, St. Louis; Wm. C. Allen, Columbia; R. K. Noback, Kansas City; Mrs. Wm. R. McPhee, Kansas City; Messrs. Allen D. Smith, Kansas City; Hollister S. Smith, St. Louis; Gary L. Schnedler, Springfield; Ray McIntyre, Royal O. Cooper, C. C. Swarens, Ron Ellison and Don Wilson, Staff.

Chairman McAlhany opened the meeting by introducing the new members of the Council, Drs. Bradley and Comer and indicated that Dr. Tanner was serving as Vice-Councilor for Dr. Bregant of the Fifth District. He then called for approval of the minutes of the Council Meeting held on April 20, 1975. On motion, duly seconded, these minutes were approved as printed.

REPORT OF THE EXECUTIVE SECRETARY

Mr. McIntyre called the Council's attention to the fact that at the April 16 meeting, the Council commended the Missouri Dental Association for its efforts and wished the association well on its proposed program for taking blood pressures of dental patients. The Dental Association, at its recent Annual Meeting, made note of the MSMA Council action.

Mr. McIntyre reported to the Council regarding a letter written by Governor Bond to HEW expressing his strong objections to the National Health Planning and Resource Development of 1974, along with his recommendations for development Act of 1974, along with his recommendations for designated Health Service Areas in Missouri, as required under Public Law 93-641.

The Mid-Missouri PSRO has requested from the Medical Association an endorsement for their efforts to become designated as the reviewing agency for Area II. They were given MSMA endorsement originally for their planning grant and are now requesting endorsement for their additional grants. Apparently, HEW requires such endorsement. On motion of Dr. Hetlage, duly seconded, the Council agreed to give such endorsement to Mid-Mo PSRO.

A short note was read from one of the 50-year physicians expressing his gratitude and pride on receiving his MSMA 50-year pin this year.—Referred to Reference Committee on Resolutions.

■ Mr. Ellison reported that there will be a meeting of the Ad Hoc Committee on the 118th Annual Session held on June 28. Members of the Commission on Interspecialty Medicine will be polled by mail regarding their comments on the 1976 meeting. Following the meeting of the 28th, the specialty organizations will be contacted in regard to how many sessions they wish to sponsor at the 1976 meeting.—Referred to Reference Committee on Medical Education and Public Welfare.

■ Mr. McIntyre reported that as most everyone knew, the AMA has won the first round in the law suit regarding the new HEW utilization review regulations for Medicare and Medicaid hospital admissions.

The preliminary injunction blocks the proposed effective date of July 1, 1975.—Referred to Reference Committee on Resolutions.

■ There are some objectionable features in a proposed manpower bill which is now before the House of Representatives in Washington—HB 5546. The two most objectionable features which are causing much concern to the medical profession are (1) the limiting and controlling of the number of various residency programs in this country and (2) the second has to do with capitation for medical education. Medical schools which take any federal aid would have to write contracts with their students and the student would agree to pay back \$2,000 per year or in lieu of that he could practice in an area which would be designated by HEW. Representative Symington on the House Committee which considered this bill has been contacted regarding the bill and the other Missouri Congressmen will be contacted. The Council members were urged to get in touch with their Congressmen concerning this bill. This will come up for vote sometime around June 12.—Referred to Reference Committee on Medical Education and Public Welfare.

COUNCILOR DISTRICT REPORTS

■ *District #1*—Dr. Martin indicated that he had no formal report, but he did submit the following resolution:

WHEREAS, John A. Hailey has, for 29 years, served the citizens of the state of Missouri as Executive Secretary of the State Board of Medical Examiners and, later, the State Board of Registration for the Healing Arts, and

WHEREAS, Mr. Hailey's dedicated service to the Board and to the medical profession in general has greatly assisted in a smooth working relationship between the licensing board and the physicians of Missouri, and

WHEREAS, During Mr. Hailey's distinguished term of service more than 17,000 people were licensed to practice by the Board; therefore, be it

Resolved, That the Missouri State Medical Association express its heartfelt appreciation to John A. Hailey for a job well done.

On motion of Dr. Martin, duly seconded, the above resolution was unanimously adopted.

District #2—Dr. Comer reported that the Mark Twain Mental Health Center has been established in Hannibal and seems to be getting off to a good start. Dr. Comer further reported that Hannibal will be acquiring four more physicians in the near future.—Referred to Reference Committee on Miscellaneous Affairs.

■ *District #3*—Dr. Judd indicated that the No. 1 topic on physicians' minds in his district is the malpractice situation. With this in mind, Dr. Judd made the following motion. He moved that the State Association send a letter of the MSMA membership informing them of the efforts of this Association and the legislative efforts being made in the field of malpractice. Motion was seconded and carried.—Referred to Reference Committee on Constitution and Bylaws.

■ *District #4*—Dr. Hetlage reported that his Fourth Councilor District representatives met on May 28 and discussed many topics. They discussed the American Federation of Physicians and Dentists. They had mixed feelings on this matter. However, it was indicated that some mechanism of protest against third parties must be provided.

The Fourth Councilor District approved the proposal for a Unit System for Hospital Data Providers and Users.

Dr. Hetlage reported that Don Wilson, MSMA Field Secretary, attended his meeting and discussed several items such as updating them relative to the AMA suit against HEW; discussed Public Law 93-641 and much discussion

was held regarding the assignment of Health Service areas under this law. The Fourth District Councilor expressed his concern over the manner in which assignments were made.—Referred to Reference Committee on Resolutions.

■ The Fourth District voted to vigorously oppose the Health Manpower Act, HR 5546, through contact with local congressmen.—Referred to Reference Committee on Medical Education and Public Welfare.

■ Discussion was held regarding malpractice legislative proposals, particularly those hearings being held by the House and Senate Special Committees and the Governor's Task Force.

MSMI was discussed and there was general feeling of lack of communication and detailed information about the program and the Fourth District suggested that immediate detailed circularization of the membership take place.—Referred to Reference Committee on Constitution and Bylaws.

■ The plan for continuing medical education was updated. The Councilor was asked to divide the Fourth District into geographic regions and to appoint co-chairmen to implement the program.

A proposal was made to have a joint meeting of societies in the Fourth District so the discussion of common problems could be held.—Referred to Reference Committee on Medical Education and Public Welfare.

■ Dr. Hetlage reported that MSMA encourages physician participation in CHP activities. However, in his particular area, the scheduling of meeting times is very unsatisfactory. It was suggested that the only adequate way of representing the profession would be to nominate members of county medical staffs to provide input designated by the local society.

The Fourth District stands firmly against the increase in dues as proposed by the Board of Trustees of the AMA and suggests to the AMA that large savings could be accomplished by cleaning out much of the deadwood in publications and other efforts of the AMA.

Dr. Hetlage said that a detailed discussion was held concerning policies of St. Louis Blue Cross, particularly their policy of paying per diem costs rather than billed charges. Dr. Hetlage moved that the matter of St. Louis Blue Cross be given to the Medical Economics Commission for a detailed study and possibly an Ad Hoc Committee on Blue Cross should be established. Motion was seconded and carried. Dr. Hetlage stressed that the criticism does not extend to Blue Shield, for they feel Blue Cross is functioning entirely independently of Blue Shield.—Referred to Reference Committee on Resolutions.

■ Dr. Hetlage submitted the following resolution, approved by the Fourth District, to be delivered to the AMA, probably too late for this coming session, but, hopefully, in the Interim Session in Hawaii:

WHEREAS, Missouri State Medical Association, House of Delegates, at its 110th Annual Meeting in March, 1968, passed a resolution calling for training of osteopathic graduates in medical post-graduate training programs, and

WHEREAS, The American Medical Association House of Delegates confirmed and reinforced this action at its meeting in December, 1968, and

WHEREAS, Since that time, there have been increasing numbers of osteopathic trainees in accredited medical residency programs throughout the country, and

WHEREAS, It has been the experience of these trainees that following completion of some accredited residency programs, neither the Medical or Osteopathic Board certification examinations have been made available to them, and

WHEREAS, This is an unreasonable and prejudicial policy in light of the action taken by the AMA in 1968, therefore be it

Resolved, That the Council of the MSMA calls this matter to the attention of the AMA with the recommendation that the proposal be studied by the Board of Trustees and recommendations be made for the correction of this situation.

On motion of Dr. Hetlage, duly seconded, it was agreed that this resolution be submitted to the AMA.—Referred to Reference Committee on Medical Education and Public Welfare.

■ Discussion followed regarding the letter written by Governor Bond to HEW expressing his objections to the National Health Planning and Resource Development Act of 1974. Although the Governor's Health Service Area designations did not conform with our suggestions, it was felt that we should commend his stand against the Federal Program set up in this law—PL 93-641.

Motion was made, seconded and carried that such a letter be directed to the Governor.—Referred to Reference Committee on Resolutions.

■ District #5—Dr. Tanner indicated that he had no formal report at this time.

District #7—Dr. McCanse reported that Jackson County's TEL-MED program seems to be working very well and is receiving 400 to 500 calls per day. He indicated that the remainder of his report would be covered later on in the meeting.

District #8—Dr. McAlhany reported that Dr. Malcolm Todd, AMA President, will be in Springfield on September 29 and 30 and invited those present at the meeting to attend.

Mr. Schnedler stated that as of June 1, the Greene County Medical Society office will take over the administration of the Springfield Dental Society.

The Greene County Bulletin recently devoted one of its issues to the AMA and it is planned that there will also be a special issue devoted to the MSMA and also the local Greene County Medical Society.—Referred to Reference Committee on Reports of Officers.

■ Greene County is working with the Bar Association on a program similar to the one Jackson County has regarding a review type panel program for malpractice problems.

District #9—Dr. Cooper indicated that he has heard many favorable comments since the last Annual Session and much interest has been generated regarding proposed legislation covering malpractice. He stated that he definitely feels that we must communicate with the physicians at the grass roots.

District #10—Dr. Hansbrough indicated that he had no formal report at this time.—Referred to Reference Committee on Constitution and Bylaws.

REPORT OF AMA DELEGATES

■ Dr. Peterson indicated that they have not as yet received instructions as Delegates regarding the AMA Annual Meeting to be held in Atlantic City beginning on June 15. Missouri has eight resolutions which will be submitted. Dr. Hubert Ritter is Chief Teller and Dr. Rae Froelich is on the Credentials Committee. MSMA's eight resolutions are in five different reference committees. Dr. Peterson indicated that if any of the Council members are planning to attend the AMA meeting to please let him know. He stated that the MSMA will have a caucus on Sunday and Tuesday mornings and, also, will sponsor a hospitality suite.

Dr. McCanse asked Dr. Peterson's reaction regarding the Fourth District's stand on increase in AMA dues.

Dr. Peterson indicated that the AMA has announced the addition of a Department of Negotiations. However, there is no budget for it. He stated that an increase in dues is essential if the AMA is to survive. They need to hire some top-notch people and to do more work in medical education, etc. which under the present budget is not possible.

Dr. Hetlage moved that the Council instruct our delegation to negotiate as much as practicable to make the AMA

Distinguished Guests at Annual Session



Sharing the platform with Dr. Parrott was The Honorable Paul G. Rogers of Florida, a member of the U. S. House of Representatives who is serving his fifth year as Chairman of the House Public Health and Environment Subcommittee.

Max H. Parrott, M.D. of Portland, Ore., President of the American Medical Association (1975-1976), was a guest speaker at the General Session on April 2. Theme of the meeting was "Current Issues Confronting the Physicians Across the Nation."

dues increase as low as feasible for this coming year. Motion seconded and carried by one vote.

Dr. Peterson asked if the MSMA had any reaction to the regulations published by Secretary Weinberger in the *Federal Register* on April 14. This indicated that physicians' fees under Medicare will be established on the basis of what we were paid as of Jan. 1, 1971 as modified by a cost of living index. On motion of Dr. Hansbrough, duly seconded, it was agreed that a letter should be written to Mr. Weinberger stating our vehement objection to this regulation.—Referred to Reference Committee on Resolutions.

REPORT OF THE PRESIDENT

■ Dr. Chandler reported that he was privileged to meet with the Greater Kansas City Orthopedic Society and reported to them the status of the malpractice situation in Missouri and what MSMA has done up to this time.

He also reported having a very enjoyable meeting with the Clay County Medical Society.

Dr. Chandler indicated that he will attend the AMA Meeting in Atlantic City and would be happy to accept an appointment by Dr. Peterson.—Referred to Reference Committee on Reports of Officers.

LEGISLATIVE REPORT

■ Dr. Matthews indicated that there are both a Senate and House Committee looking into the malpractice situation and it was indicated that a committee from MSMA has been appointed to work with them—this committee consisting of Drs. Chandler, McAlhany, Matthews and Clark.

Dr. Matthews reported on the various bills.

These include *HB 318* (Acupuncture), which died on the House calendar and *HB 342* (Extension of Chiropractic) which passed the House but, hopefully, is hung up in the Senate.

The hearings on the Chiropractic bill were good examples

of something of which we have long been aware—the political nature of Chiropractors. When supporters of *HB 342* were heard, 400 to 450 "mixer" Chiropractors and their wives packed the hearing room and Capitol halls. They had their buttons and signs and, while in the Capitol, visited their Senators and Representatives.

Just this week, when it was time for opponents of *HB 342* to be heard, we were requested to "make a show of strength" . . . and we did. Approximately 200 turned out to oppose the bill. Ironically, more than half of these were "straight" Chiropractors and Chiropractic students. It's obvious that Chiropractors know their politics.

Several other "unfavorable" bills have died on the vine. These include the following:

HB 450, which would have lengthened the Statute of Limitations from the present "two years from act" to "two years from discovery." The present malpractice insurance dilemma helped defeat this.

HB 535, which would have added a lay member to the Board of Healing Arts, was never heard by Committee. This was probably due to the opposition similar bills relating to other State Boards received.

HB 483, the Coordination of Insurance Benefits bill, was defeated on the House floor.

SB 415, which would have required drug prescriptions to be issued on special triplicate forms issued by the Division of Health, failed to clear Committee.

Two licensing bills, *SB 18* for licensure of Cardiology Technologists and *SB 432* for licensure of Ionizing Radiation Technologists, both were held in Committee. We opposed both these on the basis that certification is the best method of regulation.

A couple of *good bills* also are dead for this Session. These are *HB 132*, the Good Samaritan bill, and *HB 590*, which calls for full maternity benefits in insurance policies.

Several bills of *interest* which died along the way include the following:

HB 237, which would have required the Division of Health to operate a free mobile breast cancer detection program. There is still about \$20,000 in planning funds in the overall state revenue bill.

HB 761, which called for the registration and certification of Physician Assistants.

HB 274, which would have limited those who could administer anesthesia to physicians, dentists, podiatrists and nurse anesthetists.

SB 365, a compromise measure to establish 11 regional districts under the Division of Mental Health.

SB 404, which limited clinical research on patients and inmates in state institutions.

SB 467, which would have eliminated the requirement that the Director of the Division of Mental Health be a physician.

HB 761, which would have provided for state loans to medical students with a forgiveness clause for practicing in areas of need.

I have already touched on the bad Chiropractic bill still barely alive, but we have several *favorable* measures approaching final decisions. These include the following:

SB 1, the Surgicenter bill, which is well up on the House calendar and should be debated early next week. This bill provides for the licensing of ambulatory surgical centers by the Division of Health.

SB 458, the only malpractice legislation introduced this Session, is near the top of the House calendar and should reach the floor this week. The bill is enabling legislation which would permit the MSMA or other associations to set up a mutual-type malpractice insurance company.

HB 107, the Anatomical Gift Act extension will be voted on by the Senate soon. The bill would allow printing of the Anatomical Gift Act on the reverse of Missouri driver's licenses.

HB 626, which would require that group hospitalization policies provide coverage for hospital treatment of alcoholism, was recently reported out of Committee and should reach the Floor.

The same applies to HB 578, which would strengthen the Child Abuse Reporting Law. Due to the involvement of \$7 million in federal funds, this bill could be moved up faster.

Several other bills we have been following with interest are still in the mill. One we haven't mentioned often is SB 58, which would permit the General Assembly to rescind by concurrent resolution any administrative rule or regulation adopted by state agencies. It also would establish a Missouri Register to give notice of proposed rules and adopted rules, similar to the *Federal Register*. Other bills in good shape for final action are the following:

SB 108, which updates the Nurses Practice Act, has passed both Houses. We have worked closely with the nurses on this bill and can find no objectionable clauses.

HB 70, which would create the Health and Educational Facilities Authority, has also passed both Houses. The Authority could help finance, build or lease health and educational facilities in the state.

Two other bills will be debated soon:

HB 479, which would provide immunity to Chiropractors serving on peer review committees.

HB 642, which would lower the required age of ambulance drivers from 21 to 18.

A few bills we have been following are rather far down on the calendar and may or may not reach the floor. These include the following:

HB 305, which calls for the licensing of psychologists. We fought this bill in the past when it placed psychologists under a separate board, but this bill places them under the umbrella of the Board of Healing Arts.

HB 272 is still in a Senate Committee. This bill would require that anyone entering Chiropractic school must complete a minimum of 60 hours of pre-professional education in an accredited college.

Brief discussion followed regarding various bills. On motion, duly seconded, the Legislative Report was approved. Dr. Matthews commended staff for their efforts during this session. Chairman McAlhany expressed his personal thanks to Dr. Matthews for a job well done and stated that we are very appreciative of his efforts.—Referred to Reference Committee on Miscellaneous Affairs.

REPORT OF WOMAN'S AUXILIARY

■ Mrs. McPhee thanked the Council for helping to make the Auxiliary's annual meeting a great success and indicated Auxiliary's annual meeting a great success and indicated that the Auxiliary is eager and willing to help the Association in any way they can. She stated that their major objectives are to extend the aims of MSMA and its programs for the advancement of medicine and public health. Mrs. McPhee indicated some of the major goals of the Auxiliary for the current year.

Mrs. McPhee stated that she would like consideration and approval for a proposed immunization education project. This program is designed to stimulate better understanding in Missouri regarding immunizations. There is considerable supporting data in our state regarding declining immunization levels of one- to four-year-olds and, also, a complacency among the adult population regarding immunization for themselves. The project plan is that as many Missourians as possible receive a communication from their own physician and health department containing immunization information and a small health and immunization record book. This would be a joint effort of the Woman's Auxiliary, the Missouri Division of Health and MSMA.

Mrs. McPhee reported that it is planned that early in the summer, a letter will be mailed to the MSMA membership telling them of the proposed immunization education plan and asking if they would like to participate in the project by including the approved information as a part of their October 1 statement mailing. This timing will coincide with the national designation of *October as Immunization Action Month*. Included in the letter to the membership will be a postage paid return postcard on which physician participants may indicate the number of pieces of the material needed.

It would be the responsibility of MSMA to approve the project and provide a consultant to the committee, who will review all of the materials, to inform the MSMA membership of the project and to encourage their participation and to assume the cost of one mailing and the return postcard.

Mrs. McPhee indicated that for the last several years, the Woman's Auxiliary has joined with the AMA in promoting the health education aspects of immunization. Many state associations and their auxiliaries have participated in modifications of such programs and this proposed project is designed to be a public service by the physician, the Division of Health and the Auxiliary.

Brief discussion followed regarding several aspects of the program and several questions were raised concerning the accuracy of the brochure to be included in the mailing. It was pointed out that any discrepancies would be corrected. On motion, duly seconded, it was agreed that the MSMA endorse and participate in the above stated immunization education project.—Referred to Reference Committee on Reports of Officers.

The Annual Presidents' Banquet



As in past years, the Annual Presidents' Banquet on Saturday was a highlight of the Annual Session. Seated at the speaker's table were (left to right) Dr. Andrew McCanse, general chairman for arrangements, and Mrs. McCanse; Dr. George P. Wilson and Mrs. Wilson, President of the Woman's Auxiliary to the MSMA; Mrs. Erle E. Wilkinson of Nashville, Tenn., President of the Woman's Auxiliary to the AMA; and Mrs. R. Allen Chandler and Dr. Chandler, Outgoing MSMA President. Dr. McCanse also is Councilor for the Seventh District and Vice-Chairman of the MSMA Council.



(Left to right) Incoming MSMA President Max S. Franklin and Mrs. Franklin; AMA President Max H. Parrott and Mrs. Parrott of Portland, Ore.; and Mrs. R. Donald Blim and Dr. Blim, President of Jackson County Medical Society.



Outgoing MSMA President R. Allen Chandler (left) proudly accepts a special presidential plaque from President Max S. Franklin. The plaque was presented to Dr. Chandler in appreciation for his dedication and accomplishments in 1975-1976.



A significant event occurred at the Banquet when Dr. George H. Ladyman (left) accepted the framed certificate which made Doctor's Hospital in Poplar Bluff the first hospital in Missouri to be accredited for continuing Medical Education by the AMA and MSMA.

"Thank You, Dr. Jack Matthews!"



Dr. John I. Matthews was the recipient of a special plaque in recognition of his outstanding service as Chairman of the MSMA Committee on Legislative Affairs.

The surprise presentation was made at the Presidents' Banquet by President R. Allen Chandler, who said:

"Tonight, we have a special presentation for a man who has given unselfishly of his time and efforts to insure that Missourians have the best medical care possible.

"He is a 'Doctor's Doctor,' but when his long patient-hours and hospital rounds are over, he takes up the banner of the medical profession generally and the Missouri State Medical Association specifically.

"While most officers and others in our Association often devote long, hard hours for the betterment of medicine primarily through contact and discussions with our colleagues, this seemingly mild-mannered individual leaves his busy practice perhaps three times a week to step into the lion's den called 'politics.'

"On one of these nights, he may be expressing your support and mine of a measure which will lead to better care for our patients. On the very next night, he may be pointing out, in his very effective manner, the danger to the public of a new form of 'quackery.' In all of these cases, he must be prepared to answer pointed questions from both friends and foes of medicine.

"The thanks that I owe, you owe, the MSMA . . . the Profession and the Public owe to Dr. Jack Matthews is beyond calculation!

"Tonight, disregarding his many other important positions and contributions to organized medicine, we would like to honor Dr. Jack Matthews, the chairman of the MSMA Committee on Legislative Affairs since its inception in 1966."

Dr. Matthews also has served as Secretary of the Missouri State Medical Association since 1959.

APPOINTMENT OF COUNCILOR ADVISORS TO MSMA COMMISSIONS

■ Dr. McAlhany appointed the following Councilors to serve as Councilor Advisors to MSMA Commissions:

Commission on Continuing Education and Health Manpower—Dr. McCanse
Commission on Public Affairs—Dr. Martin
Commission on Interspecialty Medicine—Dr. Hansbrough
Commission on Medical Economics, Third Party Medicine and Governmental Relations—Dr. Hetlage
Commission on Medical-Legal Affairs—Dr. McAlhany

REPORT OF FIELD SECRETARY

Mr. Don Wilson, MSMA Field Secretary, reported that he had now visited 82 counties in the state. He has attended 16 county medical society meetings. Mr. Wilson gave a run-down by districts on the medical societies in each district that he has visited. He stated that the subjects that physicians wanted to discuss covered a wide range of topics including professional liability insurance, medical legislation, continuing medical education, AMA, PSRO, etc.

Mr. Wilson reported that a letter had been received from Mr. Larry Hughes, president of the recently formed Missouri Foundation for Pharmaceutical Care. He stated that he attended a meeting of this group. This Foundation consists of two 14-man councils (a Provider Council and a Consumer Council) and an 11-man Board of Directors.

The Foundation is asking for the participation of the MSMA and also is asking the MSMA to nominate a representative to the Provider Council. The Nurses Association, the Dental Association and the Hospital Association also are being asked to name a representative to the Provider Council.

During discussion, it was suggested that the Osteopathic Association should be included on this Provider Council.

Motion was made, seconded and adopted to defer action on this until we find whether or not the Osteopathic Association had been asked to provide a representative on the Provider Council.

Mr. Wilson stated that the MSMA is still looking into the matter of obtaining a second Field Secretary.

Dr. Martin stated that you would not hear the kind of report given by Mr. Wilson at the AMA because the AMA is not doing field work.—Referred to Reference Committee on Reports of Officers.

■ Dr. Hetlage stated that we had been asked to consider the following resolution received from the Missouri Pharmaceutical Association:

WHEREAS, Pharmacists are receiving a high volume of prescriptions written with illegible signature and no other identification of the physician,

Be It Resolved, That all physicians, hospitals and clinics institute a program wherein a rubber stamp is used to identify Doctor's Signature on prescriptions or orders.

Dr. Hetlage stated that it is his understanding that the use of rubber stamp was generally condemned by the Joint Commission on Accreditation of Hospitals and he felt approving the above resolution would set a dangerous precedent.

Dr. Hetlage moved that the Missouri Pharmaceutical Association be advised that (1) the honoring of a stamped signature is illegal on a prescription and (2) we interpret the April 29 resolution as meaning that a stamp with a printed name be used to identify the validating signature above. Motion was seconded and carried.—Referred to Reference Committee on Miscellaneous Affairs.

REMARKS OF THE DEANS

■ Dr. Thoma, St. Louis University, reported that construc-

tion is underway on the new ambulatory care center. It is hoped that construction can begin in June or July on the learning resources center.

Dr. Noback reported that 22 students had graduated on May 10. A large percentage of these students are in primary care residencies. A group of 72 students will be coming next fall and this group is about equally divided between male and female. Members of this group are high achievers academically.

Dr. Noback stated that a student who had been dropped from the UMKC program is taking the Medical School to Court. This will come up during the middle of June.

Dr. William Allen of the University of Missouri-Columbia stated that Dr. White asked that he extend his apologies for not being able to be at the meeting.

Dr. Allen stated that the process of selection of a Dean was now down to two people. It is possible that the Dean could be named within the next month. Dr. Allen indicated that no one had as yet replaced Dr. Paul Young at the University and it also was pointed out that Dr. Young had not as yet been replaced on the Ad Hoc Committee on Continuing Medical Education.—Referred to Reference Committee on Medical Education and Public Welfare.

NEXT COUNCIL MEETING

■ Dr. Franklin reported that the next council meeting will be held on September 12 and 13 at the Breckenridge Motel in St. Louis. There will be golf for those who wish to play on Friday, September 12 at the Westwood Country Club beginning at 12:30 PM. There will be an Executive Council meeting from 5 PM to 7 PM on the 12th at the Breckenridge Motel followed by dinner, with the regular Council meeting to be held on Saturday, September 13. On Saturday evening, Dr. and Mrs. Franklin will host a dinner for those attending the Council meeting.—Referred to Reference Committee on Reports of Officers.

MATTERS TO BE CONSIDERED BY COUNCIL FROM 1975 HOUSE OF DELEGATES

■ The following resolutions were acted upon at the 1975 House of Delegates:

- #1—*Certificate of Birth*—Referred to Commission on Medical-Legal Affairs.
- #2—*Patient Privacy*—Referred to the Commission on Medical Economics.
- #4—*Meeting of Component Societies*—President to name Ad-Hoc Committee.
- #6—*Hospital Discharge Data*—Sent to Division of Health.
- #7—*Courtesy Resolution*—Referred to Legislative Committee
- #8—*Courtesy Resolution*—Referred to Legislative Committee
- #10—*SSA Eligibility Status*—Introduced into AMA. Sent to the Missouri Hospital Association, Missouri Osteopathic Association, Department of HEW, Regional and National Social Security Association.
- #11—*Politics in VA Hospital*—Introduced into AMA. Sent to Missouri Hospital Association, Missouri Osteopathic Association, Veterans Administration.
- #12—*PSRO in Government Hospitals*—Introduced into AMA. Sent to Missouri Hospital Association, Missouri Osteopathic Association, Veterans Administration, HEW.
- #15—*Individual Practice Association*—Referred to Commission on Medical Economics.
- #17—*PSRO*—Introduced into AMA. Sent to HEW.
- #19—*Tract V Program*—Sent to State Board of Healing Arts, Deans, Admission Officers.

- #20—*Fluoridation*—Referred to Legislative Committee (information).
- #21—*PSRO Progress*—Material coming from AMA.
- #23—*Board of Healing Arts*—Referred to Legislative Committee (information).
- #24—*HMO Advertising*—Introduced into AMA.
- #25—*Community Medical Directory*—Referred to Commission on Medical-Legal Affairs.
- #26—*Third Party Payors*—Referred to Commission on Medical Economics.
- #27—*Patient Education*—Referred to Commission on Medical Economics (information).
- #28—*Physicians Assistants*—Referred to Legislative Committee (information).
- #29—*Task Force Report*—Referred to Committee on Publications.
- #30—*Uniform Insurance Claim Form*—Referred to Commission on Medical Economics.
- #31—*Evaluation of Competency*—Referred to Commission on Continuing Education.
- #32—*Payments to Surgi-Centers*—Sent to Kansas City and St. Louis Blue Cross.
- #33—*Federal Manpower Legislation*—Representative Symington contacted.
- #34—*Interest on Unpaid Accounts*—Referred to Commission on Medical Economics.
- #36—*Law Students and Medicine*—Introduced into AMA. Referred to Commission on Medical-Legal Affairs.
- #37—*Refusal of Third Party Payments*—Letter sent to General American. Referred to Commission on Medical Economics (information).
- #38—*PSRO Study*—Referred to Commission on Medical Economics.

Dr. McCance asked that a copy of *Resolution #11—Politics in VA Hospitals* and *Resolution #12—PSRO in Government Hospitals* be sent to Missouri's Congressional Delegation.

Dr. Chandler stated that under *Resolution #4—Meeting of Component Societies*, he was to appoint an ad hoc committee. This committee will consist of the following members: John Laird, St. Louis County, Chairman; Edwin K. Burford, Jr., Cape Girardeau; William B. O'Connor, St. Joseph; Michael J. Clarke, Springfield; August W. Geise, St. Louis Medical; Warren F. Wilhelm, Kansas City; R. John Torontow, Nevada; John R. Dixon, Brookfield, Richard P. Bowles, Liberty.

A motion was made, seconded and carried to accept this report.—Referred to Reference Committee on Reports of Officers.

MSMI, INC.

■ Mr. Cooper reported that on the state level, the following committees have been established to study the malpractice problem: (1) The Senate Select Committee will have its first hearings on June 25 and 26 at the Plaza Inn in Kansas City; (2) The Governor's Task Force on Malpractice held an organizational meeting recently. There are three or four professionals and six or seven lay people on this Task Force. Dr. McAlhany is a member of this Task Force; (3) Mr. Cooper stated that it was his understanding that a sub or ad hoc committee of Missouri's House of Representatives would be appointed to study malpractice problems.

Mr. Cooper reported that MSMI had received in excess of 500 applications for professional liability insurance and 46 policies have been issued to date. Total premiums collected amount to \$91,000. Breakdown by Classes of policies issued is as follows: Class 1—22, Class 2—3, Class 3—14, Class 4—3 and Class 5—4.

Mr. Cooper stated that a full mailing on our professional

liability insurance program still had not gone out to the membership due to the fact that we still have not obtained excess coverage. It is hoped that a full mailing, consisting of a brochure, application and covering letter from President Chandler, will be mailed in June.

Mr. Cooper reported that the Planning Committee had recommended that a study of computer services be made. A representative of the AMA's computer program will survey the MSMA Office on June 4. Possibly MSMA will wish to participate in the AMA computer program.

Mr. Cooper stated that MSMA will sponsor a trip to Alaska, September 15-25, 1975. MSMA will also sponsor a trip to Hawaii in conjunction with the Clinical Session of the AMA in late November and early December, 1975.—Referred to Reference Committee on Reports of Officers.

PSRO DATA TASK FORCE'S UNIT DATA PROPOSAL

■ Dr. McCause reported that a task force representing the five PSRO areas in Missouri studied the problem of the ever-increasing requests for hospital admission, utilization and/or discharge data. Some of these requests duplicate others but require separate handling because of the varying forms, difference in data required, etc., thus becoming a problem for those supplying the data. Soon, PSRO also will require this data. At present, this data system would not supply PSRO with the data it would need.

The Task Force suggests that it would be more efficient, effective and acceptable to develop a single discharge abstract and entry system which would satisfy the needs of all data users.

Dr. McCause indicated that establishing a system of this type would require the cooperation of all interested parties in developing a simplified, unified discharge data form. This concept has been endorsed by the Jackson County Medical Society. He stated that the administration of this proposed program would be through a not-for-profit corporation. Dr. McCause stated that this proposed program had been presented to the federal people in Kansas City and Washington. Possibly, some funding could be provided by the federal government for the establishment of the proposed program.

Dr. McCause stated that he was asking MSMA to endorse this proposal in principle.

Dr. Peterson stated that he did not see on the proposal a place where the doctors of Missouri would be able to obtain this information about their activities without going through hospitals, third parties, PSRO, etc., and, perhaps, there should be a place in this program for doctors to obtain this information. Dr. McCause stated that perhaps the MSMA could be included in this program on a need to know basis.

Dr. Judd stated that there are a lot of details that need looking at, but the concept is one that could be supported.

Motion was made and seconded to accept the concept in principle for a Unit System for Hospital Data Providers and Users. Motion carried.

The meeting was adjourned.—Referred to Reference Committee on Resolutions.

* * *

EXECUTIVE SESSION

■ In Executive Session on Friday evening, May 30, the decision of the Council for Legal Counsel and the Trustees of the MSMA Pension Program to work out a plan with Mercantile Trust to become a corporate trustee which had been tentatively approved at the Council Meeting on April 16, was further discussed. The reason for such change of trustee is because of the new, complicated federal regulations and liability responsibilities under the new Federal Pension Law.

On motion made, duly seconded and passed, the Council appointed Mercantile Trust Company as the corporate trust-

ee for the MSMA Pension Program, adopted a resolution accordingly to meet the requirements under the Pension Program and accepted the resignations of the present three trustees, all to take effect not less than 60 days after these actions taken on May 30.

A copy of the resolution adopted and the resignations of the three trustees are on file in the Association office. The original resolution will be transmitted to Mercantile Trust Company in St. Louis.—Referred to Reference Committee on Reports of Officers.

Meeting of Sept. 13, 1975

■ Howard J. McAlhany, M.D., Springfield, Chairman, called the meeting to order. Those present were Drs. McAlhany; R. Allen Chandler, Kansas City; Max S. Franklin, St. Louis; John I. Matthews, Jefferson City; Richard V. Bradley, St. Louis; James C. Cope, Columbia; John N. Martin, St. Joseph; J. Russell Comer, Hannibal; Donald R. Judd, St. Louis; Louis P. Hetlage, Troy; Robert E. Bregant, Jefferson City; William D. Bradshaw, Clinton; Andrew McCause, Kansas City; Claude W. Cooper, Thayer; E. T. Hansbrough, Poplar Bluff; Stanley S. Peterson, Springfield; Rae W. Froelich, Lebanon; Hubert A. Ritter, St. Louis; J. Loren Washburn, Versailles; James T. Brown, Springfield; George Ladyman, Poplar Bluff; Joseph B. White, Charles Lobeck, Jr. and William C. Allen, Columbia; Richardson K. Noback, Kansas City; Herbert R. Domke, Jefferson City; David Chalonner and George Thoma, St. Louis; R. A. Slickman, Kansas City; Mrs. William R. McPhee, Kansas City; Mrs. George P. Wilson, Columbia; Messrs. J. R. Johnston, Hollister S. Smith and William Lindsley, St. Louis; Allen D. Smith, Kansas City; Gary L. Schnedler, Springfield; and Messrs. Ray McIntyre, Royal O. Cooper, C. C. Swarns, Ron Ellison and Don Wilson, Staff.

APPROVAL OF COUNCIL MINUTES

Dr. McAlhany opened the meeting by calling for approval of the minutes of the Council Meeting held on May 31, 1975. On motion, duly seconded, these minutes were approved as printed.—Referred to Reference Committee on Reports of Officers.

REPORT OF THE EXECUTIVE SECRETARY

■ Mr. McIntyre reported that several meetings have been set in the areas designated as Health Service Areas (HSAs) under the National Health Planning and Resources Development Act of 1974. He indicated that physicians should be vitally interested and stated that meetings have been set for Springfield, Flat River and Sedalia with one to be held in Marshall on September 11.—Referred to Reference Committee on Resolutions.

■ Mr. McIntyre indicated to the Council that their folders contained a copy of the new abortion reporting form used by the Missouri Division of Health (for their information).

M.D. Day at the University of Missouri-Columbia will be on the weekend of November 14-15. The scientific program will be sponsored by the University Medical Center all day Friday and Saturday morning. The football game between Oklahoma and Missouri will be held on Saturday afternoon.—Referred to Reference Committee on Medical Education and Public Welfare.

REPORT OF THE TREASURER

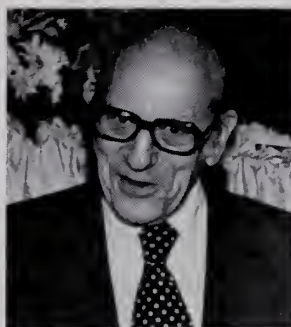
■ Dr. Bradley, MSMA Treasurer, gave an itemized Treasurer's Report as of August 31, 1975, indicating the receipts, disbursements, etc. and stating that our budget is presently in good shape.—Referred to Reference Committee on Reports of Officers.



J. Harvey Jennett, M.D.
Kansas City



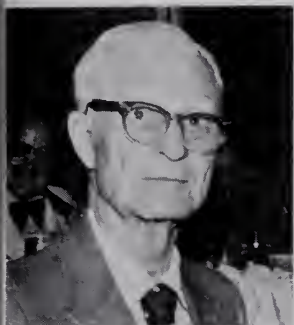
Richard R. Becker, M.D.
Kansas City



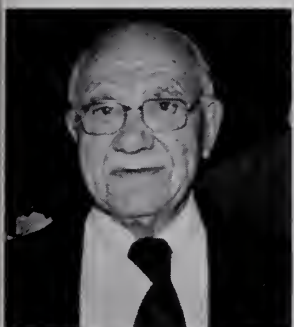
Leopold Hofstatter, M.D.
St. Louis



John A. Hartwig, M.D.
St. Louis



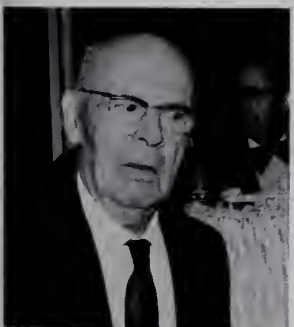
Thomas L. Dwyer, M.D.
Mexico



J. Newton Wakeman, M.D.
Springfield



Ralph R. Coffey, M.D.
Kansas City



Hollis N. Allen, M.D.
St. Louis

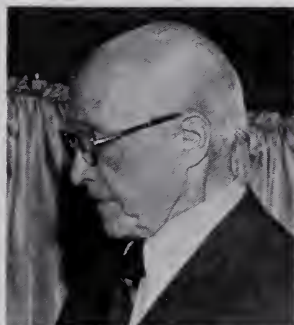
MSMA Members Receive 50-Year Pins



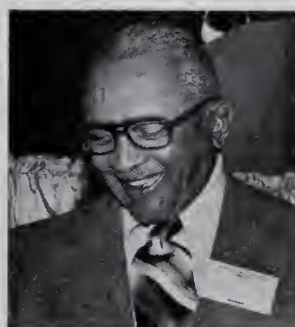
MSMA President R. Allen Chandler presents her 50-Year Pin to Norma Farmer, M.D. of Farmington.

Members of the Missouri State Medical Association who have completed 50 years in the practice of medicine are honored at the Presidents' Banquet each year.

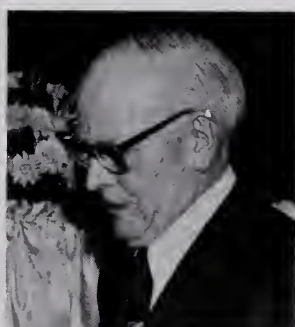
The fifteen members who attained this distinguished accomplishment in 1976 are pictured here at the time they received their 50-Year Pins and congratulations upon behalf of the MSMA from President R. Allen Chandler.



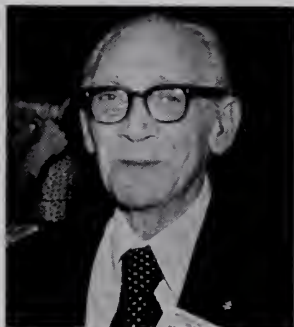
O. R. Withers, M.D.
Lee's Summit



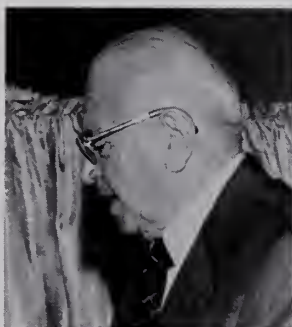
A. R. Maddox, M.D.
Sedalia



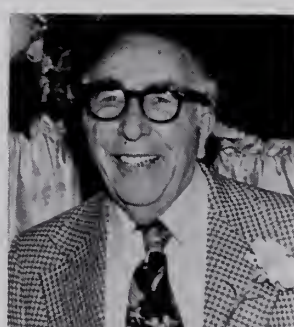
John W. McHaney, M.D.
Jefferson City



Henry P. Thym, M.D.
Ballwin



L. M. Shapiro, M.D.
Kansas City



J. A. Scopelite, M.D.
St. Louis

MSMI

■ Mr. Royal O. Cooper was asked to give a status report on MSMI and introduce the representative from HBE Leasing Corporation.

Mr. Cooper introduced Mr. J. R. Johnston, HBE Leasing Corporation, St. Louis, Missouri. Mr. Johnston said that the MSMI is studying the possibility of making available to the MSMA membership an equipment leasing program through HBE Leasing Corporation and explained the program, stating that HBE Leasing Corporation has nearly 20 years of experience in medical equipment leasing. Mr. Johnston explained the type of trifold mailing piece along with a letter that they would anticipate sending to the membership. This brochure spells out background information on the company, the advantages of leasing equipment, how the program works, etc. A reply card will be attached.

It was pointed out that there would be no cash outlay as far as MSMA is concerned on production of materials, mailing, etc. This expense will be borne by the leasing company.

Motion was made, seconded and carried that the leasing program proposal as outlined to the Council be endorsed.

Mr. Cooper reported that since the MSMI's inception in April of this year, it has generated \$570,000 in premium income for 261 policies. He stated that the class mix is very good—Class I—130; Class II—12; Class III—74; Class IV—18; Class V—7; Class VI—20. He stated that the brochures explaining the insurance program are very attractive and most of them have been sent. Mr. Cooper gave the Council brief information regarding the market surveillance on malpractice insurance.

Because the MSMI is a for-profit corporation, it was proposed that MSMI sponsor the tours for MSMA and this was so approved. Mr. Cooper indicated that there was a brochure in the Council folder on Manila which would be a February, 1976 trip.

SENATE SELECT COMMITTEE ON MALPRACTICE

Mr. Cooper reported that we are very pleased with the attendance and publicity for the Missouri State Senate Select Committee on Malpractice hearings. Hearings have been held in several parts of the state with one scheduled for next week in Cape Girardeau, St. Louis in October and Mid-Missouri in November with the idea that the final polished accepted bills can be pre-filed in December. He said that some of the problems were lack of insurance, defensive medicine, older physicians retiring, etc. Mr. Cooper indicated that the Senate Select Committee has spent two to three days a month on medical malpractice. They have presented drafts of proposed legislation which they will refine and pre-file. Some of the provisions in the drafts call for the following:

1. A ceiling of \$500,000 on the total amount recoverable.
2. Fees of plaintiff's attorney would not exceed 33% of any amount awarded. This may be changed to a sliding scale arrangement later.
3. Statute of Limitations on minors would be changed. They would come under the regular "two years from the date of the alleged act" statute except that a minor under the age of six shall have until his eighth birthday in which to file.
4. The establishment of medical malpractice review boards in each Congressional District of the state. Hearings would be held by a Circuit Court judge appointed by the Chief Justice of the Supreme Court. The hearing would be informal, except the Board would prepare a formal statement of its recommendations which would be admissible as evidence. A tax on professional liability carriers would fund the operation. The makeup of the Board will be studied further.

After brief discussion regarding the proposed legislation on malpractice, motion was made, seconded and carried that the Council commend the Senate Select Committee for its efforts on our behalf and support in principle the legislation drafted for introduction into the General Assembly.—Referred to Reference Committee on Constitution and Bylaws.

■ Chairman McAlhany stated that at this time he had a pleasant task to perform and presented Dr. J. Loren Washburn with a plaque indicating the Association's appreciation for his contributions to organized medicine in his many roles with the Association, particularly as Alternate Delegate and, later, Delegate to the AMA.

Dr. Stanley Peterson then presented Dr. Washburn with a collage depicting some of the events that took place at various AMA meetings during Dr. Washburn's tenure.

Dr. Washburn thanked the Council and Officers for their words of gratitude and indicated that he would cherish the plaque and collage forever.—Referred to Reference Committee on Reports of Officers.

REPORT OF AMA DELEGATES

■ Dr. Peterson gave a brief summary of the AMA Annual Meeting held in Atlantic City. He stated that he felt this meeting seemed to represent more grass roots opinion than ever before. Of the eight Delegates and Alternates from Missouri, six were present at the meeting and worked very hard.

The AMA dues were raised to \$250, which is needed, he said, if we are going to be spokesman for organized medicine. Dr. Max H. Parrott was installed as AMA President and Dr. Richard E. Palmer, as President-Elect.

There was some discussion at the AMA regarding elimination of some of the elected offices; a budget was adopted that should balance; and they voted to form a re-insurance company. At this point, Dr. Peterson invited the Council and Officers to Springfield on September 29, during Dr. Malcolm Todd's visit. Dr. Todd is Immediate Past-President of the AMA.

In other actions, the AMA delegates applauded the Board's action on the suit against HEW regarding post-admission certification of hospital patients. The House authorized the Board to set subscription rates for many of its publications and endorsed a study to restructure the AMA. The House adopted the Missouri resolution regarding PRISM. Newly elected delegates may begin their terms on January 1 or on July 1. The House urged constituent societies to provide full membership privileges for medical students at nominal dues. The House supported the Board in opposing the implementation of the National Health Planning and Resources Development Act enacted by Congress. At this point, Dr. Peterson recommended that physicians go to the local HSA meetings and take an active part.

The policy adopted at the 1974 Annual Convention regarding PSRO's was reaffirmed. Many other things were accomplished at the meeting and it was a good meeting. Dr. Peterson indicated that he feels the AMA is a strong organization, but they do need the help and support of every physician.—Referred to Reference Committee on Resolutions.

REPORT OF THE WOMAN'S AUXILIARY

■ Mrs. McPhee, President of the MSMA Woman's Auxiliary, introduced Mrs. George P. (Sue) Wilson, President-Elect.

Mrs. McPhee reported that the immunization program which the Auxiliary spearheaded, along with MSMA and the Division of Health, seemed to be quite successful. Orders have come in for 191,000 pieces of immunization material and she thanked Dr. Domke and the Division of Health for their great assistance in this program.

At the Annual Convention, the Auxiliary plans to have a space set aside for a silent auction of items donated by physicians and their wives. She asked the physicians if they had a particular talent, painting, etc. please share it with the Auxiliary.

The Auxiliary is holding its Fall Conference in Sedalia on October 22-23.

Mrs. McPhee reported that their national organization has changed its name to the American Medical Association Auxiliary.

Dr. Domke then thanked the Woman's Auxiliary for their efforts regarding the immunization program.

On motion, duly seconded, the report of the Woman's Auxiliary was accepted with commendation.

On motion, duly seconded, it was agreed that the Council of MSMA should convey to the Board of the Woman's Auxiliary their thanks and recognition of the great assistance that the Woman's Auxiliary has given to the MSMA.—Referred to Reference Committee on Reports of Officers.

AD HOC COMMITTEE—118TH ANNUAL SESSION

■ George H. Ladyman, M.D., Chairman of the Ad Hoc Committee—118th Annual Session, reported there will be 29 scientific sessions at the 1976 Annual Meeting. Each year this number is larger. It was recommended that there be a maximum of six sessions running concurrently with five being preferred. Rep. Paul Rogers (R-Fla.) has been contacted regarding speaking at the General Session. We are looking forward to a good session in Kansas City.

CONTINUING MEDICAL EDUCATION

Dr. Ladyman reported that in March of 1975, the Council on Medical Education of the AMA approved the Missouri State Medical Association's Continuing Medical Education accreditation program. This enables the Committee on Continuing Medical Education to carry out surveys of ongoing programs of continuing medical education within the state of Missouri. He further reported that the AMA has approved the 1975 MSMA's Annual Session for Category I credit for the scientific sessions it provides the state's physicians. Beginning this year, the AMA Physician's Recognition Award recipients will find the MSMA's seal attached to the award. This award is given to those physicians who have completed 150 hours of continuing medical education activities.

Dr. Ladyman reported that a good response has been received from the hospitals; 15 to 20 hospitals have asked us to look at their programs. A site visit will be conducted on September 26 in Poplar Bluff. He said that in Missouri, there are not many CME programs that are not directly associated with either a private, community or county hospital. By the first of 1976, it is hoped that six to ten inspections will have been made. At that time, we hope that each hospital and each physician will have been provided with a CME folder and each quarter the CME hours can be recorded and tallied. We must determine a way to review this information every three months and send the award when they have completed the requirements. This is the status of the CME program at the present time.

Dr. Hetlage stated that at one of the AMA leadership conferences at one session, members of the audience were able to talk directly to the AMA Board of Trustees. He wondered if the Council might be interested in doing something like this at the MSMA Annual Meeting.

Discussion regarding the location of the next several Annual Sessions followed and it was pointed out that a decision should be made regarding the 1977 Annual Session. Stouffer's Riverfront Inn in St. Louis does have the facilities. However, for the first time, they will be charging for meeting rooms. Dr. Ladyman pointed out, however, that their booth rental charge seemed to be quite a bit less and would

offset the meeting room charge.

Mr. McIntyre then indicated that Tan-Tar-A at the Lake of the Ozarks is becoming quite a convention center and that we have inspected their facilities. They are in a position to handle our convention if we wish to try a third location.

On motion, duly seconded, and carried, it was agreed that the 1977 Annual Session be held at Stouffer's in St. Louis; and 1978 at Tan-Tar-A with the stipulation that the Council meet at Tan-Tar-A at the earliest possible time to study the facilities there. The 1976 Annual Session is already scheduled for Kansas City.

The question was raised as to whether there is a need for an interim meeting of the MSMA House of Delegates. Dr. Ladyman indicated that this might be helpful for a more active leadership.

Dr. Matthews suggested that having an opportunity to sit down and ask the AMA delegates various questions should be a part of every annual session.—Referred to Reference Committee on Medical Education and Public Welfare.

COUNCILOR DISTRICT REPORTS

■ *District #1*—Dr. Martin reported that he had attended the AMA-AHA National Conference on Professional Liability. Most of the states were represented and all have most of the same problems regarding malpractice. Some of the items discussed were limitation on damages; limitation on contingency fee; quality of care assurance; elimination of incompetent physicians; immunity for peer review activities; duplication of payments; periodic payments instead of lump sum; local witness law—a lot of so-called expert witnesses make this a business. These are some of the things each state should have.—Referred to Reference Committee on Constitution and Bylaws.

■ *District #2*—Dr. Comer reported that he has been able to get around to visit most of the physicians in his area. He recently attended the CMMR County Medical Society meeting and, also, the HSA meeting in Marshall. The HSA meeting seemed to be dominated by CHP and RMP and physician representation was sparse.

District #3—Dr. Judd reported that the summertime in his district was very quiet and he had no particular report.

District #4—Dr. Hetlage reported that his Fourth Councilor District representatives met on September 10 and discussed the following items:

Regarding the disposition of a resolution on Patient Educational Programs which was passed by the House of Delegates in April, Dr. Hetlage suggested that communication regarding this policy be made to hospital staff organizations, in addition to county medical societies. It was felt that it may not be proper for the MSMA to communicate directly to hospital staff organizations, but his district did feel the Council should discuss this.—Referred to Reference Committee on Resolutions.

■ Dr. Hetlage indicated that a broad discussion of the relationship of the MSMA to the malpractice problem in Missouri was held. After much discussion of the benefits and shortcomings of the current MSMA program and a discussion of Senate Bill #458 passed by the last Legislature, the following resolution was proposed. Dr. Hetlage presented the resolution and moved its acceptance. The motion was seconded and carried.

WHEREAS, The physicians of Missouri are beset by innumerable problems concerning malpractice and, particularly, the cost of medical liability insurance, and

WHEREAS, There is a recognized need to provide lower cost medical liability insurance to the entire membership of MSMA; and

WHEREAS, Senate Bill #458 passed by the 78th General Assembly of the Missouri State Legislature provides the means to create a self-owned mutual insurance company to provide cooperative low cost medical liability to all its members; therefore, be it

Resolved, That an Ad Hoc Committee of Council be formed to investigate the means and provide the framework for a mutual insurance company to be wholly owned and funded by the doctors of Missouri and to move with all due haste in this endeavor so that a final plan may be presented to the MSMA House of Delegates for their approval at the meeting in April, 1976.

—Referred to Reference Committee on Constitution and Bylaws.

■ The Fourth District members discussed individual practice associations. Legislation passed by the federal government encourages the formation of these organizations. The Fourth District proposed that the Council of the MSMA take the lead in forming a group for the discussion of the principle throughout the state, so that sufficient information is available to each physician in order that action may be taken if and when it is necessary.

Dr. Hetlage said that the remainder of his report would be covered in other items on the agenda.—Referred to Reference Committee on Resolutions.

■ *District #6*—Dr. Bradshaw indicated that because he had been out of his office for some time, he had no report. He said that proposed legislation has been drafted for means of developing more rural physicians for Missouri and he will bring this back to the Council for their further study.—Referred to Reference Committee on Miscellaneous Affairs.

■ *District #7*—Dr. McCanse reported that the physician turnout at the Kansas City meeting of the Senate Select Committee was quite good.—Referred to Reference Committee on Constitution and Bylaws.

■ TEL-MED, a telephone question-answer type arrangement in Jackson County began in February and as of August, 48,941 calls have been received.—Referred to Reference Committee on Miscellaneous Affairs.

■ A federal grant application has been made in excess of \$800,000 to get an HMO in Kansas City. The same group had received a previous grant for planning services, so there is still activity in this area at this time.—Referred to Reference Committee on Resolutions.

■ *District #9*—Dr. Cooper reported that in his own area, there is increasing interest in national health insurance, PSRO, Malpractice insurance, etc. He said that his area is in need of more physicians. He mentioned the death of Dr. B. J. (Jack) Bass who was active in MSMA matters over many years.

District #10—Dr. Hansbrough indicated that the Senate Select Committee on Malpractice is coming to Cape Girardeau next Friday and the physicians in his area are well informed regarding this. It has been a quiet summer in District #10.

District #8—Dr. McAlhany reported that the Governor's Task Force on Malpractice had several meetings. He is a member of this Task Force. The Task Force is made up of 15 members, but only one M.D. and one D.O. The Task Force has approved two pieces of legislation to be pre-filed in December: (1) Elimination of the "ad damnum" clause and (2) statewide review panel which would be set up similar to that proposed by the Senate Select Committee. Under this panel, all cases would have to be reviewed before they could go to court.

The Task Force also is considering the following three items and possibly may recommend legislation on these: (1) Define Informed Consent; (2) Modify Collateral Source Rule; (3) Contingency fee be placed on graduated basis.

Dr. McAlhany stated that he felt that a definition of medical malpractice is needed in Missouri. He stated that, hopefully, the Task Force would recommend that every claim filed must be reported to the Insurance Commissioner and the Commissioner would make an annual report to the General Assembly.

Dr. McAlhany was asked if he felt that the Task Force

Before prescribing, please consult complete product information, a summary of which follows:

Indications: In adults, urinary tract infections complicated by pain (primarily pyelonephritis, pyelitis and cystitis) due to susceptible organisms (usually *E. coli*, *Klebsiella-Aerobacter*, *Staphylococcus aureus*, *Proteus mirabilis*, and, less frequently, *Proteus vulgaris*) in the absence of obstructive uropathy or foreign bodies.

Note: Carefully coordinate *in vitro* sulfonamide sensitivity tests with bacteriologic and clinical response; add aminobenzoic acid to follow-up culture media. The increasing frequency of resistant organisms limits the usefulness of antibacterials including sulfonamides. Measure sulfonamide blood levels as variations may occur; 20 mg/100 ml should be maximum total level.

Contraindications: Children below age 12; sulfonamide hypersensitivity; pregnancy at term and during nursing period; because Azo Gantanol contains phenazopyridine hydrochloride it is contraindicated in glomerulonephritis, severe hepatitis, uremia, and pyelonephritis of pregnancy with G.I. disturbances.

Warnings: Safety during pregnancy not established. Deaths from hypersensitivity reactions, agranulocytosis, aplastic anemia and other blood dyscrasias have been reported and early clinical signs (sore throat, fever, pallor, purpura or jaundice) may indicate serious blood disorders. Frequent CBC and urinalysis with microscopic examination are recommended during sulfonamide therapy.

Precautions: Use cautiously in patients with impaired renal or hepatic function, severe allergy, bronchial asthma; in glucose-6-phosphate dehydrogenase-deficient individuals in whom dose-related hemolysis may occur. Maintain adequate fluid intake to prevent crystalluria and stone formation.

Adverse Reactions: *Blood dyscrasias* (agranulocytosis, aplastic anemia, thrombocytopenia, leukopenia, hemolytic anemia, purpura, hypoprothrombinemia and methemoglobinemia); *allergic reactions* (erythema multiforme, skin eruptions, Stevens-Johnson syndrome, epidermal necrolysis, urticaria, serum sickness, pruritus, exfoliative dermatitis, anaphylactoid reactions, periorbital edema, conjunctival and scleral injection, photosensitization, arthralgia and allergic myocarditis); *G.I. reactions* (nausea, emesis, abdominal pains, hepatitis, diarrhea, anorexia, pancreatitis and stomatitis); *CNS reactions* (headache, peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo and insomnia); *miscellaneous reactions* (drug fever, chills, toxic nephrosis with oliguria and anuria, periarteritis nodosa and L.E. phenomenon). Due to certain chemical similarities with some goitrogens, diuretics (acetazolamide, thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia. Cross-sensitivity with these agents may exist.

Dosage: Azo Gantanol is intended for the acute, painful phase of urinary tract infections. *Usual adult dosage:* 2 Gm (4 tabs) initially, then 1 Gm (2 tabs) B.I.D. for up to 3 days. If pain persists, causes other than infection should be sought. After relief of pain has been obtained, continued treatment with Gantanol (sulfamethoxazole) may be considered.

NOTE: Patients should be told that the orange-red dye (phenazopyridine HCl) will color the urine.

Supplied: Tablets, red, film-coated, each containing 0.5 Gm sulfamethoxazole and 100 mg phenazopyridine HCl—bottles of 100 and 500.



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Division of Hoffmann-La Roche Inc.
Nutley, New Jersey 07110

**When pain
complicates acute cystitis***

Azo Gantanol[®]

Each tablet contains 0.5 Gm sulfamethoxazole and 100 mg phenazopyridine HCl.

for the pain for the pathogens

☐ **Early relief of painful symptoms** such as burning and discomfort associated with urgency and frequency.

☐ **Effective control of susceptible pathogens** such as *E. coli*, *Klebsiella-Aerobacter*, *Staph. aureus*, *Proteus mirabilis* and, less frequently, *Proteus vulgaris*.

☐ **Appropriate antibacterial therapy:** up to three days with Azo Gantanol, then 11 days with Gantanol[®] (sulfamethoxazole).



*nonobstructed; due to susceptible organisms

ROCHE

DYAZIDE[®]

Each capsule contains 50 mg. of Dyrenium[®] (triamterene, SK&F Co.) and 25 mg. of hydrochlorothiazide.

Trademark

MAKES SENSE FOR LONG-TERM CONTROL OF HYPERTENSION*



Before prescribing, see complete prescribing information in SK&F literature or PDR. The following is a brief summary.

* **Warning**

This fixed combination drug is not indicated for initial therapy of edema or hypertension. Edema or hypertension requires therapy titrated to the individual patient. If the fixed combination represents the dosage so determined, its use may be more convenient in patient management. The treatment of hypertension and edema is not static, but must be reevaluated as conditions in each patient warrant.

* **Indications:** *Edema:* That associated with congestive heart failure, cirrhosis of the liver, the nephrotic syndrome; steroid-induced and idiopathic edema; edema resistant to other diuretic therapy. *Mild to moderate hypertension:* Usefulness of the triamterene component is limited to its potassium-sparing effect.

Contraindications: Pre-existing elevated serum potassium. Hypersensitivity to either component. Continued use in progressive renal or hepatic dysfunction or developing hyperkalemia.

Warnings: Do not use dietary potassium supplements or potassium salts unless hypokalemia develops or dietary potassium intake is markedly impaired. Enteric-coated potassium salts may cause small bowel stenosis with or without ulceration. Hyperkalemia (>5.4 mEq/L) has been

reported in 4% of patients under 60 years, in 12% of patients over 60 years, and in less than 8% of patients overall. Rarely, cases have been associated with cardiac irregularities. Accordingly, check serum potassium during therapy, particularly in patients with suspected or confirmed renal insufficiency (e.g., elderly or diabetics). If hyperkalemia develops, substitute a thiazide alone. If spironolactone is used concomitantly with 'Dyazide', check serum potassium frequently—both can cause potassium retention and sometimes hyperkalemia. Two deaths have been reported in patients on such combined therapy (in one, recommended dosage was exceeded; in the other, serum electrolytes were not properly monitored). Observe patients on 'Dyazide' regularly for possible blood dyscrasias, liver damage or other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving Dyrenium (triamterene, SK&F). Rarely, leukopenia, thrombocytopenia, agranulocytosis, and aplastic anemia have been reported with the thiazides. Watch for signs of impending coma in acutely ill cirrhotics. Thiazides are reported to cross the placental barrier and appear in breast milk. This may result in fetal or neonatal hyperbilirubinemia, thrombocytopenia, altered carbohydrate metabolism and possibly other adverse reactions that have occurred in the adult. When used during pregnancy or in women who might bear children, weigh potential benefits against possible hazards to fetus.

Precautions: Do periodic serum electrolyte and

BUN determinations. Do periodic hematologic studies in cirrhotics with splenomegaly. Anti-hypertensive effects may be enhanced in post-sympathectomy patients. The following may occur: hyperuricemia and gout, reversible nitrogen retention, decreasing alkali reserve with possible metabolic acidosis, hyperglycemia and glycosuria (diabetic insulin requirements may be altered), digitalis intoxication (in hypokalemia). Use cautiously in surgical patients. Concomitant use with antihypertensive agents may result in an additive hypotensive effect. 'Dyazide' interferes with fluorescent measurement of quinidine.

Adverse Reactions: Muscle cramps, weakness, dizziness, headache, dry mouth; anaphylaxis; rash, urticaria, photosensitivity, purpura, other dermatological conditions; nausea and vomiting (may indicate electrolyte imbalance), diarrhea, constipation, other gastrointestinal disturbances. Necrotizing vasculitis, paresthesias, icterus, pancreatitis, xanthopsia and, rarely, allergic pneumonitis have occurred with thiazides alone.

Supplied: Bottles of 100 capsules; in Single Unit Packages of 100 (intended for institutional use only).

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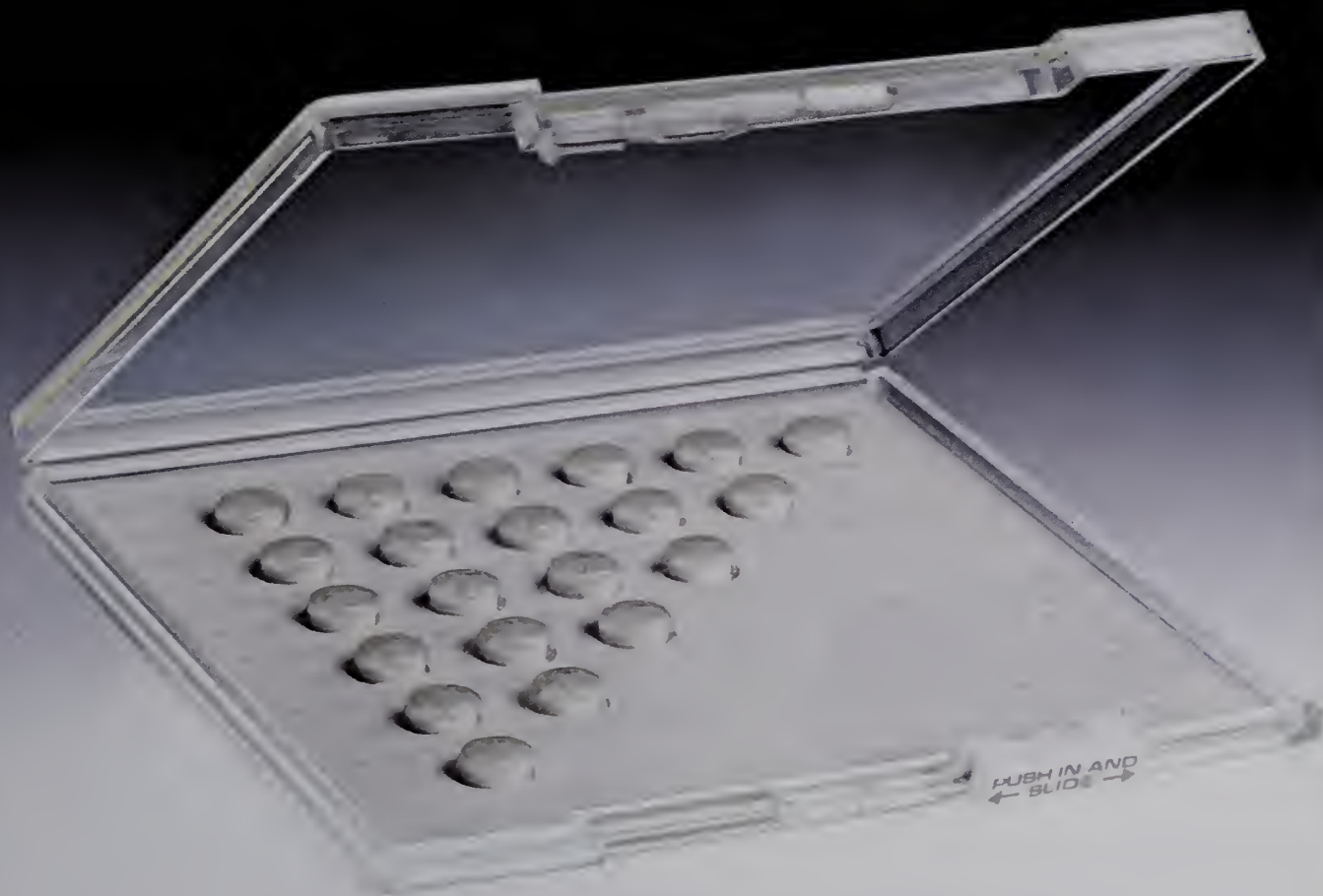
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Medrol[®] 4 mg Dosepak^{*}

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The explicit printed dosage instructions that accompany each Dosepak make it easy for the patient to understand and follow the dosage regimen.





When Big Ben looks "a little off"...

Antivert[®]/25 (meclizine HCl) 25 mg. Tablets for vertigo*

■ **Most Widely Prescribed**—Antivert is the most widely prescribed agent for the management of vertigo* associated with diseases affecting the vestibular system such as Menière's disease, labyrinthitis, and vestibular neuronitis.

■ **Relief of Nausea and Vomiting**—Antivert/25 can relieve the nausea and vomiting often associated with vertigo*.

■ **Dosage for Vertigo***—The usual adult dosage for Antivert/25 is one tablet t.i.d.

BRIEF SUMMARY OF PRESCRIBING INFORMATION

*INDICATIONS. Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows

Effective: Management of nausea and vomiting and dizziness associated with motion sickness.

Possibly Effective: Management of vertigo associated with diseases affecting the vestibular system.

Final classification of the less than effective indications requires further investigation.

CONTRAINDICATIONS. Administration of Antivert (meclizine HCl) during pregnancy or to women who may become pregnant is contraindicated in view of the teratogenic effect of the drug in rats.

The administration of meclizine to pregnant rats during the 12-15 day of gestation has produced cleft palate in the offspring. Limited studies using doses of over 100 mg./kg./day in rabbits and 10 mg./kg./day in pigs and monkeys did not show cleft palate. Congeners of meclizine have caused cleft palate in species other than the rat.

Meclizine HCl is contraindicated in individuals who have shown a previous hypersensitivity to it.

WARNINGS. Since drowsiness may, on occasion, occur with use of this drug, patients should be warned of this possibility and cautioned against driving a car or operating dangerous machinery.

Usage in Children: Clinical studies establishing safety and effectiveness in children have not been done; therefore, usage is not recommended in the pediatric age group.

Usage in Pregnancy: See "Contraindications."

ADVERSE REACTIONS. Drowsiness, dry mouth and, on rare occasions, blurred vision have been reported.

More detailed professional information available on request.

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and the Senate Select Committee would make a joint effort at proposing legislation. He stated that he doubted that this would be feasible. The Task Force probably will introduce its legislation into the House and the Senate Select Committee's legislation will be introduced into the Senate and then a compromise agreement will be worked out.—**Referred to Reference Committee on Constitution and By-laws.**

■ Dr. McAlhany reported that Dr. Malcolm Todd, Immediate Past-President of the AMA, will be in Springfield on September 29 and 30 and asked Mr. Schnedler to give a brief rundown on the visit. Mr. Schnedler outlined the various activities of Dr. Todd while he is in Springfield. There will be a dinner meeting held on the evening of the 29th. Mr. Schnedler indicated that the Council members also would be receiving invitations to this dinner.

WHITE HOUSE CONFERENCE

Dr. Cope reported that he had attended the White House "Town Meeting" Conference held on the previous day in St. Louis. He felt that this was a great meeting. Dr. Cope stated that he had had lunch with David Mathews, the new Secretary of HEW.—**Referred to Reference Committee on Reports of Officers.**

STATE CONFERENCE ON HEALTH SERVICE AREAS

■ Mr. C. C. Swarens reported that a Statewide Conference on Health Service Areas had been held in Jefferson City on August 19. He stated that the real purpose of this meeting in Jefferson City was to add impetus to the local areas to get moving in setting up Health Service Agencies in each area.

Dr. Bradshaw asked if there is any chance that any of the boundaries for the areas in Missouri could be changed. Dr. Domke stated that the Governor had designated the areas. It seems, however, that the Governor is dissatisfied with the law and the program under it.

Mr. Swarens stated that a meeting of component medical society officers will be held on October 17 and 18. Letters have gone out to the Presidents and Secretaries of County Medical Societies.—**Referred to Reference Committee on Resolutions.**

COMMITTEE ON ARRANGEMENTS

■ Dr. McAlhany appointed the following members to serve on the Committee on Arrangements for the 1976 Annual Session: Dr. Andrew McCause, Kansas City, Chairman; Dr. John Martin, St. Joseph and Dr. William Bradshaw, Clinton.—**Referred to Reference Committee on Medical Education and Public Welfare.**

LEGISLATIVE REPORT

■ Dr. Matthews pointed out that the four proposed bills coming out of the hearings by the Senate Select Committee on Malpractice had already been approved in principle by the Council.—**Referred to Reference Committee on Constitution and By-laws.**

■ Dr. Matthews stated that it would be well to have a committee appointed by the President of the Association to work with the Osteopathic Association on legislation and other areas of mutual interest. Motion was made, seconded and carried that such a committee be appointed.

A bill that will be introduced by the podiatrists was referred to Legal Counsel for consideration as to what the changes in wording would mean.

Dr. Matthews stated that due to the current malpractice situation and other legislative activities, it was necessary to

find a way to get wider dissemination of what is being done on the legislative level.

Dr. Matthews moved that a special meeting be set up between the MSMA Executive Secretary and the executive secretaries of the county medical societies to develop an innovative way to get information down to physicians. Motion was seconded and carried.

GOVERNOR'S TASK FORCE ON CERTIFICATE OF NEED

Dr. Hubert Ritter gave a preliminary report on the Governor's Task Force on Certificate of Need, of which he is a member. He stated that the Task Force will be studying the following three areas: (1) Hospital construction; (2) Hospital remodeling; (3) Purchasing of equipment.

Dr. McAlhany asked Dr. Ritter to give the Council another report on this Task Force at the December meeting.—**Referred to Reference Committee on Miscellaneous Affairs.**

REMARKS OF MEDICAL SCHOOL DEANS

■ Dr. McAlhany introduced Dr. David R. Challoner, the new Dean of St. Louis University Medical School.

Dr. Challoner stated that, as yet, he did not have the data on the newly enrolled class. The Learning Resources Center is now under construction and Dr. Challoner also outlined several other construction projects now underway.

Dr. Challoner indicated that he felt everyone should be aware of the Federal Health Manpower legislation currently going into hearings in the U. S. Senate as this legislation could directly affect funding for medical students and the academic curriculum process of the schools.

Dr. Noback stated that the new class of 72 students in Kansas City are all virtually from Missouri. The class is about evenly divided between metropolitan and rural areas. Dr. Noback reported that most of the graduates from his school are in primary care residencies and most of these are in the Kansas City region. The Kansas City Medical School has been adding new faculty members in the area of the basic sciences; Dr. Noback stated that construction on the Truman Medical Center is moving on schedule and it should be ready in about a year.

Dr. White introduced Dr. Charles C. Lobeck, Jr., the new Dean of the University of Missouri-Columbia School of Medicine. Dr. White reported that 110 students had recently entered the medical school and they were about evenly divided between metropolitan and rural areas. The family medicine program at the University has increased the number of residencies to 24 with an ultimate goal of 30.

Dr. White stated that several months ago, the University had been invited by the National Center for Health Services Research to make an application to establish a Center for Health Services Research. Two of the six centers in the U. S. would be designated as National Resources. He reported that an application had been submitted and that the University was still competitive at this time.

Dr. White stated that he would like to report on the current status of the attempt to establish a comprehensive cancer center within the state. Several years ago the State Cancer Hospital, Cancer Research Center, the University and other medical schools in the state had individually submitted applications to become the comprehensive cancer center for the state. None of these applications were successful, and it was suggested that, perhaps, these various institutions should coordinate their efforts in establishing a comprehensive cancer center in the state. These various groups have been meeting and have established a program that is named Missouri Cancer Programs, Inc.

The administrative officers of the seven institutions—University of Missouri Medical Center at Columbia, St. Louis

University Medical Center, University of Missouri Medical School at Kansas City, Kirksville College of Osteopathic Medicine, Kansas City School of Osteopathy, Ellis Fischel State Cancer Hospital and the Cancer Research Center—are the incorporators of the Missouri Cancer Programs, Inc. and Bylaws have been drawn up. Dr. John Yarbrow has been appointed Director of the program.

Dr. White stated that concern had been expressed that this joint effort had not been reported to the Council and he apologized for not having done so previously. Dr. White stated that Dr. Yarbrow, acting as a consultant to the Cancer Research Center, is getting information together and will request a site visit by the National Cancer Institute later this year.

Dr. James Brown, Speaker of the MSMA House of Delegates, thanked the Council for inviting him to the meeting and indicated that he had no report at this time.—**Referred to Reference Committee on Medical Education and Public Welfare.**

REPORT OF THE FIELD SECRETARY

■ Mr. Don Wilson reported that this Council meeting marked the first anniversary of his field service activities with the Association. The majority of the county medical societies in the state have been contacted more than once and all those contacted have expressed appreciation to the Association for this program. Mr. Wilson stated that during the second year, he hopes to switch from individual contact in a doctor's office to contact at various medical society meetings that he attends within each District and with hospital staffs.—**Referred to Reference Committee on Reports of Officers.**

REPORT OF COMMISSION ON MEDICAL ECONOMICS

■ Dr. Peterson, in the absence of Dr. Chastain, Chairman of the Commission, gave a report on a recent meeting of the Commission. Dr. Peterson stated that Mr. Earl Carlson of General American (Medicare) had attended the meeting. Mr. Carlson informed the members that the Fiscal Year, 1976, prevailing and customary charge data for Medicare is now available through General American. This information will be supplied without charge upon a physician's request. This charge information is itemized into the three geographic areas serviced by General American and listed by specialty and procedure. It indicates the 75th percentile—the actual prevailing charge screen and the 50th percentile that applies to new physicians in their first year of practice in the area. Under the law, the allowed amount for a given service shown on a medical insurance claim is generally the lowest of (1) the actual charge made by the physician for the service; (2) the customary charge generally made for that service by the physician; (3) the *prevailing charge*, which is the charge most physicians in the locality would find acceptable for that service; or (4) the charge that would be recognized by the carrier for its own subscribers or policyholders for the service.

Under the law, just before the beginning of each fiscal year, Medicare reviews the actual charges billed by physicians in the preceding calendar year. The most common of these actual charges by a physician for a service is established as his customary charge for that service. The prevailing charge is then established at the 75th percentile of all individual physicians' customary charges for each service. In effect, the prevailing charge for any given service is the amount which is high enough to cover in full the customary charges of those physicians whose billings accounted for at least 75% of all claims for that service in the locality in the preceding calendar year.

Mr. Carlson then explained the effect of the 17.9% limit on

reimbursement above the levels prevailing in Fiscal Year-1971. The AMA has debated this fee index. It has charged that Congress intended local, rather than a national, index and that the limitation was not supposed to be on a procedure-by-procedure basis, but on aggregate.

The next item discussed was the work of the Medicaid Advisory Committee to the Division of Family Services. Dr. Heeb discussed the first draft of the proposed Medicaid fee schedule as prepared from the existing Medicaid computer program.

Dr. Heeb proposed that certified family physicians be considered as specialists by the Medicaid program and be entitled to the specialist fee for services performed.

The Commission instructed Drs. Heeb and Peterson to meet with state officials and discuss Medicaid problems and, also, to request a reasonable increase in fees to reflect the current economic conditions. They also were requested to obtain the percentage of change in Medicaid payments for physicians services for the past five years and to request payment of certified family physicians as specialists.

The next item on the agenda was the discussion of reimbursement to hospitals by St. Louis Blue Cross. Presently, under negotiated contracts, reimbursement is made at the rate of 103% of per diem costs.

On motion, it was recommended that an ad hoc committee be appointed by Dr. Chastain to work with representatives of the Hospital Association and consult with St. Louis Blue Cross. Possibly, Blue Cross could re-negotiate hospital contracts. This committee is also to obtain information on the impact of the federal government's cost containment program on hospital reimbursement.

The following resolutions adopted by the MSMA House of Delegates in 1975 were referred to this Commission:

Resolution #2—Invasion of Patient Privacy by Governmental Agencies. It was noted that a PSRO Data Task Force Steering Committee was studying the problem of confidentiality of medical records. The Commission recommends that Dr. Deitchman of St. Louis County prepare a brief report on "Patient Privacy" and submit it to the Commission. Possibly, this could be developed and recommended as the MSMA official position on patient privacy and the confidentiality of medical records.

Resolution #15—Development of Individual Practice Associations. After discussion, the Commission recommends that staff develop an article on Individual Practice Associations and print it in *MISSOURI MEDICINE* to inform the membership of this alternative to HMO's.

Resolution #26—Third Party Payers. The Commission accepted this resolution and directed staff to develop a letter that could be used in replying to Medicare carriers when this quotation is used in their letter to the beneficiary.

Resolution #27—Patient Education. This resolution adopts guidelines for third party reimbursement for patient education.

After discussion, the Commission recommends that this MSMA policy be disseminated in the following manner: (1) If the county medical society is staffed, information will be forwarded through the staff and the society officers to hospital staffs. (2) If the County Medical Society is not staffed, information will be forwarded to the county officers and ascertain from them if the information may be sent directly to hospital medical staffs in their area.

Resolution #30—Uniform Insurance Claim Form. The Commission notes that the objectionable statement contained in the Uniform Insurance Claim Form appears to have been eliminated in the revised claim form that is now available.

Resolution #34—Interest Charged on Unpaid Accounts. The Commission accepted for information the report of the

AMA Judicial Council adopted by the MSMA House of Delegates concerning the charging of interest on unpaid accounts. It is noted that this information is now contained in the MSMA Policy Manual.

Resolution #38—PL 92-603 (PSRO). The MSMA House of Delegates Reference Committee that heard this resolution made the following statement:

"In reviewing this Resolution, several inaccuracies in reference to sections of Public Law 92-603 were noted. Discussion of Resolution #38 was by proponents of the resolution and certain questions were raised which neither they nor members of the Committee were able to answer. The Committee feels that members of the MSMA are entitled to complete and accurate information and discussion of Public Law 92-603. Therefore, the Committee has the following recommendation:

"The Reference Committee recommends that Resolution #38 be referred to the Commission on Medical Economics and Third Party Medicine for further study and clarification and that that Commission's report be disseminated to the members of the MSMA."

It was the consensus of those present that they did not fully understand the resolution. It is recommended that the two Jackson County members of the Commission, Drs. Griffith and Braverman, discuss this with the writer of the resolution. Perhaps, he would like to present clarifying information and, possibly, present testimony at the next Commission meeting.

Dr. Esther discussed a letter and statement on the billing form provided the insured and the physician by an insurance company that provides coverage for a large factory in the area. Many physicians in the Jasper County area provide services for these employees. This statement to patients provides:

"If the above benefits paid for surgery, surgical assistance, and/or anesthesiology do not pay the doctor's charges in full, a dispute exists regarding the fees charged and the reasonable and customary fee as indicated by BFG Surgical Consultants. Your doctor has been notified of this. If you have not made a previous agreement with him regarding the amount of his fee and you decide not to pay this difference, any attempt by the doctor to collect any remaining balance through legal proceedings should be reported through personnel immediately for assistance."

The letter to the physician outlines that benefits are based on reasonable and customary fees for the services rendered and that a physician has the right to charge whatever amount he feels proper, but the benefit payable does not equal the fee charged and it gives the upper limits of the range of fees for the procedure performed. The Jasper County Medical Society will discuss this at its next meeting.

The Commission recommends to the Council that immediate action be taken to inform the insurance company that the statement to the patients of cost is unethical and that it should be discontinued. It further recommends that MSMA adopt a policy statement against this type of letter.

Dr. Hetlage stated that this is a serious matter and, in effect, what the insurance companies were doing was to sell a UCR policy without going to doctors and getting them signed up to accept UCR and then tried to force UCR on non-voluntary physicians. Dr. Hetlage indicated that he had prepared a resolution on this which is as follows:

WHEREAS, UCR programs, by their very nature require the signed participation by a physician to bind him to a UCR fee schedule, and

WHEREAS, The recent experience with practicing physicians throughout the State with two major insurance companies would seem to indicate a move to force UCR schedules upon non-participating physicians, therefore be it

Resolved, That the Council of the Missouri State Medical Association makes hereby known that the profession of medicine in Mis-

souri condemns this type of action as intolerable and will take any action necessary, including legal intervention, to preserve the right of the practicing physician to set his fee as an independent transaction between him and his patient, free of third party intrusion, except in those instances where the physician has voluntarily agreed to accept a UCR schedule by signed consent.

Dr. Hetlage moved the adoption of the above resolution. Motion was seconded and carried.

During discussion on this matter, it was suggested that, perhaps, a letter should be written to the insurance companies informing them of the above resolution.

Motion was made, seconded and carried for adoption of the entire report.

DATA TASK FORCE REPORT

Dr. McCanse, MSMA representative to PSRO Data Task Force and Missouri Center for Health Statistics Task Force, stated that the Council on May 31 had approved in principle the proposal from the five PSRO groups that a central collecting agency for hospital discharge data information be developed. Confidentiality would be assured by a board of directors of such corporation made up of providers, including physicians and hospital association members and various data users. Since the May Council meeting, articles of incorporation and bylaws for the new corporation have been proposed and funding sources looked into.

The Division of Health currently has a hospital discharge data program and Missouri PSRO officials were informed that the national PSRO officials would not fund a new data processing system if there were an existing system in operation which could provide the necessary information. It has been proposed that the concept of the corporation be changed from a data collection and processing corporation to an advisory corporation to the Division of Health where matters concerning confidentiality and release of information could be addressed and resolved.

Dr. McCanse reported that Dr. McAlhany had received a letter from Dr. Frank Maple, Chairman of the Data Steering Committee, asking that the MSMA submit names of five members for the board of directors of the corporation.

Dr. McCanse stated that he would like to submit the following recommendations for consideration by the Council:

1. Because of the change in the purpose of the corporation from operational to advisory, it is questionable that the MSMA should participate in the sponsored corporation at this time. The corporation is not in keeping with the original concept of having a private collection and processing agency as approved by the MSMA.
2. An up-to-date report from the PSRO groups on what direction they feel should be taken is necessary in order for MSMA to consider the various alternatives.
3. MSMA should consider advantages and disadvantages of having the Division of Health collect these data in order to satisfy the needs of the various data users and the advantages and disadvantages of serving in an advisory corporation to the Division of Health.

Dr. Domke stated that at this point, more facts would have to be known about the situation in order to do more planning. He indicated that we are far short of having a final system. Dr. Domke stated that under some of the new legislation coming out of Congress, there would be lots of people who would have legitimate interests in information of this type and, if possible, a single system would be desirable in which providers and users would participate and exercise the appropriate degree of control.

On motion, duly seconded, the report on the Data Task Force by Dr. McCanse was accepted as information only. Motion carried.

REMARKS OF THE PRESIDENT

Dr. Chandler stated that last year, President Cope had appointed Dr. Clement Grebel of St. Louis as MSMA representative to the PSRO Support Center. Dr. Chandler stated that he felt that Dr. Grebel should be reappointed as he is very knowledgeable and hardworking in this area. Motion was made, seconded and carried to reappoint Dr. Grebel.—Referred to Reference Committee on Resolutions.

■ Dr. Chandler stated that the Governor's Task Force on Malpractice is in operation and Dr. McAlhany is doing an excellent job on this Task Force. He indicated that he agrees that we should support the four bills that will come out of the Senate Select Committee.

President Chandler stated that he had been receiving letters from physicians expressing concern over MSMI and the MSMA's failure to set up a mutual insurance company. He indicated that he had received an invitation from the Kansas Medical Society for our malpractice committee to meet with theirs to compare ideas and goals.—Referred to Reference Committee on Constitution and Bylaws.

NEXT COUNCIL MEETING

■ The December Meeting of the Council will be held on December 12 and 13, 1975, at the Holiday Inn in Jefferson City. There will be a meeting of the Finance and Budget Committee at 1:30 PM on December 12.

EXECUTIVE SESSION

Dr. McAlhany adjourned the regular Council Meeting and called for an Executive Session. The following matters were discussed and actions taken:

Mr. McIntyre explained briefly that MSMA Legal Counsel felt the MSMA should change its trustees on the Pension Program from the three individual trustees to a corporate trustee because of the liability under the new federal pension law. At a previous Council Meeting, the Council approved the working out of the details establishing Mercantile Trust Company as the corporate trustee for the Pension Program. These details have been worked out and the proper papers drawn up for the transfer from the present three individual trustees to a corporate trustee, Mercantile Trust Company. Mr. McIntyre requested that the Council give the MSMA President authority to sign the papers making this transfer and releasing the present three trustees of the MSMA Employees' Pension Program from all responsibility and liability as trustees of the Pension Program.

On motion, duly seconded, such authority was granted and the proper papers signed by Dr. Chandler, President of MSMA.—Referred to Reference Committee on Reports of Officers.

■ Dr. Hetlage brought up the subject of HSAs and the dissatisfaction of some of the physicians in his particular area. After brief discussion, motion was made that the Council of the MSMA inform the Governor of the dissatisfaction of the doctors in HSA District II and to request that he reemphasize his personal concern regarding the lack of wisdom of this total legislative effort. However, by assuming a cooperative posture that we request Area II be changed in such a manner that the five areas of the State will then correspond to the existing PSRO boundaries. The motion was seconded and carried.—Referred to Reference Committee on Resolutions.

Meeting of Dec. 13, 1975

■ Howard J. McAlhany, M.D., Springfield, Chairman, called the meeting to order. Those present were Drs. McAlhany; R. Allen Chandler, Kansas City; Max S. Franklin, St. Louis; John I. Matthews, Jefferson City; Richard V. Bradley, St.

Louis; James C. Cope, Columbia; John N. Martin, St. Joseph; J. Russell Comer, Hannibal; Donald Judd, St. Louis; Louis P. Hetlage, Troy; Robert E. Bregant, Jefferson City; William D. Bradshaw, Clinton; Andrew McCanse, Kansas City; Claude W. Cooper, Thayer; Eugene T. Hansbrough, Poplar Bluff; Stanley S. Peterson, Springfield; Hubert A. Ritter, St. Louis; George Ladyman, Poplar Bluff; John Laird, St. Louis; Francis Maple, Springfield; M. Kenton King, St. Louis; David Challoner, St. Louis; Charles Lobeck, William C. Allen, Joseph White and John Yarbrough, Columbia; Mrs. William McPhee, Kansas City; Mrs. George Wilson, Columbia; Messrs. Hollister Smith, St. Louis; Ray McIntyre, Royal O. Cooper, C. C. Swarens, Ron Ellison and Don Wilson, Staff.

On motion, duly seconded, the minutes of the Sept. 13, 1975 Council Meeting were approved as printed.—Referred to Reference Committee on Reports of Officers.

EXECUTIVE SECRETARY'S REPORT

■ Mr. McIntyre called on Mr. Swarens to review the Health Service Area situation in Missouri. Mr. Swarens indicated that the MSMA office has been receiving requests for the past several days asking for suggestions for nominees from the MSMA to turn in for possible membership on various HSA Boards. Mr. Swarens indicated that things are moving quite rapidly with the HSAs as December 19 is the cutoff date for funding. Almost all are in different stages of development at the present time.—Referred to Reference Committee on Resolutions.

BUDGET AND FINANCE COMMITTEE REPORT

■ The Budget and Finance Committee met on Friday afternoon, December 12, prior to the Council Meeting on Saturday. The Committee reviewed the material presented which showed Exhibit A—Actual Income through Oct. 31, 1975; Expected Total Income for 1975; Income Budget for 1975 and Estimated Receipts for 1976; Exhibit B—Actual Expenditures through Oct. 31, 1975; Estimated Expenditures for 1975; Budget for 1975 and Proposed Budget for 1976; Exhibit C—Actual Meeting and Committee Expenses through Oct. 31, 1975; Estimated Expenses for all of 1975; Budget for 1975 and Proposed Budget for 1976. A breakdown of anticipated income and expenses for the years 1975 and 1976 was also included.

Dr. Bradley, Chairman of the Budget and Finance Committee, reported that the Association has more than sufficient capital for all 1975 debts and the committee recommends that since there is sufficient available operating capital, the note on the MSMA building at 113 Madison should be retired. It was further recommended that Staff, along with Dr. Matthews, investigate the possibility of future real estate involvement in nearby properties.

On motion, duly seconded, the above two recommendations were approved by the Council.

The Budget and Finance Committee approved the following proposed Budget for 1976:

Salaries	\$182,894.00
Furniture and Fixtures	750.00
General Expense	5,300.00
Office Supplies	7,000.00
MSMF Assessment	42,080.00
JOURNAL Expense	45,000.00
Postage	7,000.00
Equipment Rentals & Repairs	3,800.00
Telephone & Telegraph	9,500.00
Pension Expense	18,000.00
Legal & Professional	10,000.00
Payroll Taxes	8,731.00
Commission—Committee Meetings	63,500.00

Annual Session	25,000.00
Discretionary Council Fund	5,000.00
Taxes—IRS	487.00
Travel Expenses	16,000.00
Building Expenses	13,600.00
MMPAC Educational Projects	3,000.00
Improvements to Building	1,500.00
AMCAP (Computer Program)	1,000.00

TOTAL \$469,142.00

After a brief discussion of the proposed Budget, on motion, duly seconded the report of the Budget and Finance Committee was approved in toto.

REPORT OF MSMA PRESIDENT

President Chandler reported that an Ad Hoc Committee on Malpractice has been formed in Jackson County along with Clay County and has held several meetings. The MSMA is being criticized for not having the malpractice problem completely under control. Many physicians are not even aware of what the MSMA is doing in this regard, even though we have tried our best to keep them informed. Dr. Martin had made a suggestion on Friday evening regarding restudying the JOURNAL and finding new ways to communicate current problems to the membership. Dr. Chandler stated that he hoped the Chairman will appoint a committee to look into this matter with Dr. Finnegan.

Dr. Chandler reported that he attended the Grand River Medical Society Christmas Meeting and had a very enjoyable evening.

Dr. Chandler indicated that MSMA officials met with officials of the Missouri Association of Osteopathic Physicians and Surgeons on the prior evening and will be working closely with them on legislation to help alleviate some of the problems in this area.

COMMITTEE ON PLANNING

Mr. Cooper reported that the Committee on Planning met in Columbia on November 14. Dr. Franklin, President-Elect of the MSMA, at the request of the Committee, outlined briefly for the Committee some items he would like to accomplish during his term as President. He urged support of Dr. Ritter on his candidacy for the AMA Board of Trustees; indicated he would like to see unified membership in Missouri; mentioned the present situation regarding amalgamation of St. Louis City and St. Louis County and the possibility of establishing an ad hoc statewide committee to do planning work on redistricting as time goes on; and discussed the MSMA lobbying effort. Also, during his remarks to the Committee, Dr. Franklin discussed the problems that might be involved in a mandatory reexamination for licensure program.

The Committee discussed the CME Program and suggested that members of the Association should be encouraged to participate in the MSMA voluntary program.

During the Committee meeting, Mr. McIntyre discussed the publication *Missouri Life*. The editor has asked MSMA Staff for assistance in informing physicians and citizens of the publication. The Committee suggested that the publisher might direct a letter and a copy of the magazine to the physician's office, along with subscription information or, possibly, a reprint of one of the articles could be submitted.

During the Committee's 1974 meeting they recommended that a study of electronic data processing proposals be made by the Association. The AMA has surveyed the MSMA office and submitted a proposal. Mr. Cooper indicated that since the planning meeting, our CPA has gone

to the AMA and studied this proposal. He seems quite enthusiastic about what the program does have to offer. The Planning Committee discussed the Committee and Commission recognition awards and it was suggested that the Chairmen of Commissions and Committees be utilized to assist staff in developing some criteria for this recognition.

The Committee discussed Dr. Franklin's recommendations: (1) Support will be given to Dr. Ritter's candidacy for AMA Board and the Committee urged the Council to support him as a candidate; (2) They suggest that the Council should keep in mind the possible amalgamation of the two St. Louis medical societies and the problems of redistricting; (3) It was indicated that resolutions will undoubtedly be introduced at the MSMA 1976 House of Delegates regarding unified membership; (4) Discussed lobbying funds, and it was their opinion that sufficient funds should always be made available for this purpose.

The Committee commended the MSMA on its voluntary CME program.

Dr. Franklin spoke to the Council briefly regarding his suggestions to the Planning Committee. On motion, duly seconded, the Council accepted the report of the Committee on Planning.—Referred to Reference Committee on Reports of Officers.

REPORT OF AMA DELEGATES

■ Dr. Stanley Peterson reported on the AMA Clinical Session held in Hawaii, indicating that six of our AMA Delegates and Alternates were in attendance. He briefly outlined some of the actions taken by the House. The House adopted a Board of Trustees report calling on medical societies to express to Congress their concern that proposed new amendments to Medicare and Medicaid would discourage physician participation and defeat the goals of the federal programs. The amendments would fix Medicaid reimbursement at 80% of the Medicare basis, which is limited by the 75th percentile provisions and "unrealistic economic indexes."

The House backed the AMA-developed bill to correct rule-making abuses through the *Federal Register* and called on physicians and medical societies to give active support to the bill.

A report opposing the National Health Planning and Resources Development Act was approved by the House. The House reaffirmed its support of the AMA-developed national health insurance bill (HR 6222). The House approved the establishment of an Ad Hoc Committee on Medical Discipline to determine if incompetent physicians are the cause of the high liability costs.

The House asked the State Societies to urge their Legislatures to adopt the AMA-developed model "Disabled Physician Act." The AMA reorganization movement was on again and a series of proposals to change the structure of the AMA were debated. The House accepted a recommendation to abolish the office of AMA Vice-President.

Dr. Peterson reported that the Delegates were enthusiastic about Dr. Ritter's candidacy for the Board and that another Missourian is up for reelection and that is Dr. Joseph M. White of Columbia to the Council on Medical Education.

Dr. Peterson stated that actions that were taken by the AMA at the Hawaii meeting are published in the green sheet and the MSMA yellow sheet will also carry them.

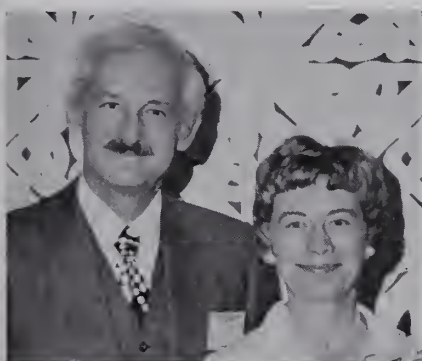
Dr. Hetlage indicated that in talking with people at the Hawaii meeting, other states are really impressed by the effectiveness of the small MSMA delegation and they have a high regard for them. Dr. Hetlage said that he still feels that members of the Missouri delegation should wear the same color jackets.

MSMA Woman's Auxiliary Installs New Officers



Members of the Woman's Auxiliary to the MSMA elected and installed new officers for 1976-1977 during the Installation Luncheon at the 51st Annual Convention in Kansas City. They are (*seated, left to right*) Mrs. Claude W. Cooper, Ninth District Director; Mrs. William H. Penninger, Eighth District Director; Mrs. W. Jack Stelmach, President-Elect; Mrs. George P. Wilson, President; Mrs. Larry A. Ozenberger, First Vice-President; Mrs. Richard C. Hedges, Legislation Chairman; and Mrs. Charles R. Willman, Parliamentarian.

(*Standing, left to right*) Mrs. Jack Hill, Editor, *Missouri Doctor's Wife*; Mrs. Harold K. Kanagawa, Recording Secretary; Mrs. Charles H. Cozean, Tenth District Director; Mrs. F. T. H'Doubler, Treasurer; Mrs. Raymond A. Ritter, Auditor; Mrs. Robert S. Hunt, Fourth Vice-President; Mrs. Carl H. Almond, Fifth District Director; Mrs. Raymond W. Hartwig, Third Vice-President; Mrs. A. J. Campbell, Sixth District Director; Mrs. William C. Allen, Corresponding Secretary; and Mrs. Donald A. Fakhoury, Second Vice-President.



Honored guests at the luncheon and convention included MSMA President R. Allen Chandler (*left*) with Mrs. William R. McPhee, MSMA Auxiliary President who presided, and MSMA President-Elect Max S. Franklin (*second from extreme right*) with Mrs. George P. Wilson, Auxiliary President-Elect. (*Center picture*) Mrs. Wilson accepts the gavel of authority from Mrs. McPhee.



Kansas City's Mayor Charles B. Wheeler presents a "key to the city" to Mrs. Erle E. Wilkinson of Nashville, Tenn., AMA Auxiliary President for 1975-1976.

Mrs. Chester Young of Kansas City, Kan., President-Elect of the AMA Auxiliary.

(*Left to right*) Mrs. Wilkinson; Mrs. J. Gordon Dees, President of the Woman's Auxiliary to the Southern Medical Association; and Mrs. James A. Reid, a Past-President of the MSMA Auxiliary.

On motion, duly seconded, the Council moved to enthusiastically support Dr. Hubert A. Ritter in his candidacy to the AMA Board of Trustees and Dr. Joseph M. White to the Council on Medical Education.

On motion, duly seconded, the report of the AMA Delegates was accepted by the Council.—Referred to Reference Committee on Resolutions.

CONTINUING MEDICAL EDUCATION

■ Dr. Ladyman brought the Council up-to-date on the activities regarding the Continuing Medical Education Program. He indicated that there are now 14 institutions and organizations in Missouri that have been accredited by the AMA Council on Continuing Medical Education for the CME activities. He also indicated that we have received requests from eight specialties, one county medical society and 14 hospitals expressing their desire to participate in the MSMA-CME program. Doctors Hospital, Inc., Poplar Bluff, has been the first hospital to be accredited by the MSMA, and Dr. Rutledge Howard from the AMA was very pleased with the CME program there. The CME program will be fully implemented as of Jan. 1, 1976.

Dr. Ladyman further stated that there will be a fee for the accreditation surveys and it is anticipated that this fee will be around \$250. This fee will be applicable to hospitals and institutions, but it was felt that the local county medical societies and specialty organizations would not be charged a fee.

Dr. Ladyman reported that the opening session of our 118th Annual Session will feature Dr. Max Parrott, President of AMA, and Rep. Paul Rogers, Member, U. S. Congress. There are 26 sessions sponsored by 14 specialty groups and two voluntary health agencies.

A brief discussion followed regarding various aspects of the CME program. Dr. Ladyman indicated that individual programs cannot be accredited, but that the MSMA accreditation program will be focused at the institution or organization. The institution should have someone responsible for coordinating the medical education programs.

Dr. Ladyman indicated that letters have gone out informing hospitals in the state of Missouri regarding the MSMA-CME program. If they express interest in participating in the program, they will be forwarded a pre-survey questionnaire and, when completed, to be returned along with a \$50 deposit. After reviewing the pre-survey questionnaire and the CME Committee is satisfied that the essentials are met, a date will be set for a site team visit. The recommendations of this site team will then be directed to the Ad Hoc Committee on CME.

It was pointed out that the CME program is one of the most significant accomplishments of the MSMA and continuing reports regarding its progress will be made to the Council. On motion, duly seconded, the report was approved, stipulating that this includes not charging county medical societies a fee for accreditation surveys.—Referred to Reference Committee on Medical Education and Public Welfare.

MSMA WOMAN'S AUXILIARY

■ Mrs. McPhee reported that the MSMA Woman's Auxiliary Fall Conference was a success and thanked the Council for their help.

The Auxiliary asked for Council approval for a project it would like to undertake and that is distributing posters regarding "Emergency Treatment for Food Choking." This is in conjunction with the Missouri Restaurant Association and the Missouri Nursing Home Association. The Auxiliary will finance the project. On motion, duly seconded, approval was given the Auxiliary for this project.

Mrs. McPhee reported that Mrs. Erle Wilkinson, Presi-

dent of the AMA Woman's Auxiliary, will attend the Annual Meeting. She also gave a brief rundown on some of the planned activities for the Auxiliary's program at their Annual Session. She asked that the Association might publicize the Auxiliary's program and mention in Dr. Chandler's letter to the membership that Mrs. Wilkinson will attend and, also, include a special invitation to wives of physician members who are not members of the Auxiliary. On motion, duly seconded, this was approved by the Council.

Mrs. McPhee asked the Council to let the Auxiliary know when they can be of assistance regarding legislation or other projects.

The Chair accepted the report of the Woman's Auxiliary with commendation.—Referred to Reference Committee on Reports of Officers.

STUDY OF MUTUAL ASSESSMENT COMPANY

■ Dr. Cope indicated that since the passage of legislation which would allow physicians of Missouri to develop a mutual assessment company, MSMA has been under some pressure to pursue this. The Chairman of the Council appointed a committee to study the matter and named Dr. Cope as Chairman. Dr. Cope indicated that this is not a complete report. Much information is needed before we can arrive at any conclusions. The Committee met on November 6 with a local law firm representative to explain this type of insurance company and how it might be established. It was his opinion that it would require approximately 50% participation of MSMA members and \$4 million capitalization before such a company should be formed. Also, the re-insurance question must be answered. The market is very fluid and unstable at this time.

Dr. Cope reported that a questionnaire is now being developed to be sent to MSMA membership seeking to acquire actuary information and supply the actuaries with the data needed for premium schedules and to determine the depth of interest members have in abandoning their present insurance and going to a mutual assessment company.

It was pointed out that this is a very complicated undertaking and the committee will continue to research the possibility of a mutual assessment company.—Referred to Reference Committee on Constitution and Bylaws.

AD HOC COMMITTEE ON MEETING OF COMPONENT MEDICAL SOCIETY REPRESENTATIVES

■ Dr. John Laird, Chairman of the Ad Hoc Committee on Meeting of Component Medical Society Representatives, reported that a meeting was held Oct. 17-18 at the Lodge of the Four Seasons, Lake of Ozarks. There were 21 representatives of 16 medical societies in attendance, plus the Chairman. Some of the specific topics covered were (1) Structure and Functions of County Medical Societies; (2) Continuing Medical Education; (3) Emergency Medical Services; (4) Malpractice Insurance; (5) AMA Membership; (6) Physician Reimbursement; (7) General Topics—PSRO; HSAs; Customary Fees as determined by the insurance carrier. Most of the meeting was of an open discussion type, which seemed to be well received by all present. It was planned that no recommendations would be made by the Committee as a whole, but that each society representative would make his own recommendations to his individual society and that this be an information-gathering session. Dr. Laird said that he felt the meeting was very worthwhile.

An evaluation questionnaire was sent out following the meeting with all attendants responding. All felt this was a good way of getting information to others and of providing information on what is going on in various societies. All recommended the informal structure of the meeting

without division into smaller groups. They were satisfied with the general topics of discussion and recommended this type of forum be continued.

On motion, duly seconded, the report was accepted with commendation to the Chairman.

It was further moved that the Ad Hoc Committee on Component Medical Society Representatives Meeting be continued on an annual basis under the Commission on Public Affairs with the suggestion to the Chairman that the format carried out this year be continued. Motion carried.—Referred to Reference Committee on Reports of Officers.

PROPOSED HEALTH SERVICES DATA SYSTEM

■ Dr. Francis Maple reported that for sometime, hospitals have been putting out data from their medical records to various people and there are many, many different kinds of forms to be filled out. It was obvious that this is a problem. There was no uniformity of how this was done and a task force at the PSRO level identified the problem. It was recommended that a data corporation be set up for the state of Missouri. The corporation will have as its primary intent the control of data emanating from the hospitals and other health institutions. It is hoped that by doing this, each hospital will have only one unified data discharge set that will need to be provided instead of the multiple forms that the hospitals now have to fill out. There will be 19 on the corporation Board of Directors to include MSMA, MAOPS, Missouri Hospital Association, PSRO, Division of Health, Division of Family Services and Missouri Medical Records Association.

On motion, duly seconded, the Council approved the formation of this corporation and recommended approval of the following physicians to the Board of Directors: Andrew McCanse, M.D., Kansas City, Area I; Wellington Stewart, M.D., Columbia, Area II; Falls B. Hershey, M.D., St. Louis, Area III; Francis M. Maple, M.D., Springfield, Area IV; and Stanley D. Sides, M.D., Cape Girardeau, Area V.—Referred to Reference Committee on Resolutions.

REPORTS OF THE DEANS

■ The Medical School Deans gave statistics on the numbers of students enrolled in the various schools and the high scholastic quality of enrolling students.

Dr. Lobeck, new Dean at the University of Missouri-Columbia School of Medicine, reported the hiring of a new Director of Neurosurgery and also Dean of the Nursing School.

It was reported that the University of Missouri-Columbia is in the process of updating its patient guide for physicians on referrals. This contains physicians' names, departments and phone numbers. Council approval was asked on the new format to be used for this referral guide. On motion, duly seconded, the Council approved this referral guide.

Dr. Franklin asked about the possibility of forming a Fifth Pathway to take care of American students studying in foreign countries on their return to the United States. It was indicated that until now, there has not been sufficient requests or interest in such.

Dr. Challoner of St. Louis University indicated that they are delighted with Dr. Ritter's candidacy to the AMA Board of Trustees and, also, Dr. White for his reelection to the Council on Medical Education.

There was some discussion as to the selection of medical students and whether there is some way to determine a student's quality of human interest along with high grade point averages. Dr. Challoner said that this is a very difficult determination to make. However, in the interview and by reviewing letters, this is definitely a quality they do try to determine.

Dr. King reported that Washington University has established a Department of Genetics through a gift of \$4 million. Dr. King said that they will discuss the health manpower legislation proposals now current.

Discussion was held as to whether there had been any recent surveys made regarding what becomes of the female medical graduate ten to 15 years following graduation. It was pointed out that any studies that might have been done in the past probably would not apply to young women in medical school today.

Dr. McCanse reported that Dr. Noback expressed regret at his inability to be present at this meeting due to an upcoming visit to the medical school by the Liaison Committee on Medical Education. The University of Missouri-Kansas City School of Medicine also is studying the health manpower legislation and hopes that it is not too restrictive.

Dr. McCanse stated that Dr. Christianson of the Office Education Resources has compiled an audio-visual catalog. The UMKC curriculum book has been revised recently by the practitioners in Kansas City. The Truman Medical Center will be finished next August and hopes are to move into it in September. A group of 20 students and faculty members are scheduled for a trip to China.—Referred to Reference Committee on Medical Education and Public Welfare.

REPORTS OF DISTRICT COUNCILORS

■ *District #1*—Dr. Martin reported that the Methodist Medical Center in St. Joseph is undertaking a \$16 million expansion. Mr. Warren Hinton, Administrator at the Methodist Medical Center, has recently been appointed to the Board of Health.

Dr. Martin stated that he agreed that all physicians should take part in HSAs.

Mr. Gary Clark, who had been serving as temporary Executive Director of the State Board of Registration for the Healing Arts, has been appointed as permanent Executive Director.

Dr. Martin pointed out that due to a new law, the State Board of Registration for the Healing Arts no longer has the power to take a physician's license. The Board can investigate a physician, but then it must turn over its information to the State Hearing Commissioner who makes the final judgment.

Dr. Martin stated that he hoped to have a Councilor District meeting in February. He reported that Dr. John P. Ferguson of Springfield was recently appointed to the Board of Registration for the Healing Arts.—Referred to Reference Committee on Miscellaneous Affairs.

■ *District #2*—Dr. Comer stated that he had attended the meeting of the Component Medical Societies' representatives at the Lodge of the Four Seasons and he felt that it was an excellent meeting. Dr. Comer stated that one of the most important points discussed during this meeting was the problem of communications.

Dr. Comer indicated that he hoped to have a program in his District whereby there would be an Executive Session before each county society meeting at which he would report on current issues, problems, etc. to the county society officers in order that they might be better informed.

District #3—Dr. Judd reported that several committees in his district are quite active. Among these are committees on insurance liaison, hospital-physician relations, HSA, PSRO, medical-legal and malpractice crisis committee.

Dr. Judd reported that meetings were being held every two to three weeks on HSAs. There will be 60 members on the HSA Board in the St. Louis area. Dr. Judd reported that CEMPROC, the PSRO group in St. Louis, is active.

Dr. Judd said that the physicians in his area are concerned about the malpractice situation and are willing to do anything they can to support our actions to help solve the problems.—Referred to Reference Committee on Reports of Officers.

■ *District #4*—Dr. Hetlage reported that he had recently received a flyer from *Newsweek* and part of the flyer stated that there are more than 5% or some 19,999 incompetent physicians in the U. S. Dr. Hetlage stated that he sent copies of the flyer to the AMA and that both he and the AMA had written *Newsweek* objecting to this kind of advertising.

Newsweek has replied to Dr. Hetlage's letter indicating that they will not use this type of advertising in the future.

Dr. Hetlage stated that at the last Council Meeting, he had introduced a resolution in regard to UCR programs. Both the Medical Economics Commission and the Council recommended that when a physician is involved with a UCR program, the physician and the patient should agree on a fee before surgery.—Referred to Reference Committee on Resolutions.

■ Dr. Hetlage stated that he would like to submit the following resolution in regard to a change in the Bylaws of the MSMA:

WHEREAS, the MSMA Council meets prior to and immediately after each Annual Meeting of the House of Delegates, and

WHEREAS, The presence of individual Councilors and the Council as a whole has become increasingly necessary at this meeting, therefore be it

Resolved, That Page 7, Chapter VI, Section 2 of the MSMA Bylaws be revised as follows:

In the sentence referring to compensation of Councilor expenses, which at the present reads as follows: "but this shall not include his expense in attending the Annual Session of the Association," substitute "including" for the words, "but this shall not include," so that the sentence would then read as follows: "The necessary traveling expenses incurred by each Councilor in the line of duties herein imposed may be allowed on a proper itemized statement submitted monthly and within the current year, including his expense in attending the Annual Session of the Association."

The motion was made, seconded and carried that this resolution be accepted.—Referred to Reference Committee on Constitution and Bylaws.

■ Dr. Hetlage again brought to the Council's attention the fact that LPNs and RNs are inserting ear studs for customers in department stores without medical supervision.

Dr. Chandler stated that all the Councilors had a copy in their folders of an article concerning physicians that appeared in the *St. Louis Globe-Democrat*. Dr. Chandler indicated that he felt a letter should be written in reply to this article.—Referred to Reference Committee on Miscellaneous Affairs.

■ *District #5*—Dr. Bregant reported that he had recently attended a meeting of a group of professionals where representatives of various professions got together to discuss common problems. Some of the common problems discussed were liability, mandatory CME, public membership on Boards, etc. Dr. Bregant reported that it was felt that the group should meet once in January and once in the summer. Dr. Bregant indicated that he felt this is a worthwhile

endeavor and that MSMA should continue to send officers to attend these meetings.

The motion was made, seconded and carried that the officers of this Association should attend these meetings.

Dr. Bregant reported that there had been some discussion as to where the HSA Headquarters for Area II will be located. He reported that there is a chance that the HSA Board in Area II would have two M.D.s and one D.O. Dr. Bregant reported that the Mid-Missouri PSRO is in a position to go conditional.

Dr. Allen pointed out that there was a national campaign to have the members of HSAs appointed not elected, but that in Area II at least the providers would be selected by their own groups.

District #6—Dr. Bradshaw stated that his District has the same problems and concerns that have been expressed by several other Councilors.

District #7—Dr. McCanse reported that an HMO for the Kansas City area had been federally funded and should begin operation within a two-year time frame.

The Jackson, Clay and Platte county medical societies will have a Legislative Breakfast on December 20. The members of these three medical societies will meet with their local legislators to discuss the malpractice situation and the MSMA Legislative program for the coming year.

Dr. McCanse reported that Dr. Don Blim, President of Northwest Missouri PSRO Board of Directors, has written a letter to Dr. Clement Grebel, Chairman of the Board of Directors of the Mo. PSRO Support Center, which indicated that "it is the intention of Northwest Mo/PSRO to no longer participate in nor send official representation to the Board of Directors of the Missouri Support Center until such time as Northwest Mo/PSRO is convinced that our objections to the Support Center structure and operation have been addressed and sufficiently resolved so as to accommodate the position of Northwest Mo/PSRO."

During a discussion of this matter, it was suggested that a medical representative from each of the five PSRO areas in the state and Dr. Clem Grebel of the PSRO Support Center be invited to the next Council Meeting to bring the Council up to date on this matter.

District #9—Dr. Cooper stated that most of the concerns in his area had been covered by other Councilors, but that he wished to express particular interest in the remarks about HSAs. Dr. Cooper reported that most of the doctors in his district were interested in the MSMA Legislative program and would contact their legislators.—Referred to Reference Committee on Resolutions.

■ *District #10*—Dr. Hansbrough reported that the Senate Select Committee on Malpractice held a hearing in Cape Girardeau and that quite a few physicians attended this hearing. Dr. Hansbrough invited all those present to a Southeast Missouri Regional EMS seminar that will be held in his area. This seminar will be presented by local people on local problems.

Dr. Hansbrough reported that four physicians were active in the local HSA organization. Dr. Hansbrough stated that malpractice is a problem and that concern had been expressed in his area about whether or not a mutual assessment company would be effective. Dr. Hansbrough said that he would ask the members of the medical societies in his District to read the yellow sheet in *MISSOURI MEDICINE* in order that they might better keep up to date on current problems.

District #8—Dr. McAlhany reported that PSRO Area IV had submitted an application to become conditional. Dr. McAlhany thanked Dr. Chandler for his comments contained in a recent President's Page in *MISSOURI MEDICINE* which complimented Greene County on a meeting which

Dr. Malcolm Todd, AMA President, had attended.—Referred to Reference Committee on Resolutions.

■ Dr. McAlhany reported that in October, the Governor's Task Force on Malpractice approved eight items to be pre-filed and introduced into the upcoming session of the General Assembly. Seven of these eight items have now been pre-filed.

Dr. Peterson stated that Dr. James Sammons, Executive Vice-President of the AMA, will attend the Greene County installation on January 31.—Referred to Reference Committee on Constitution and Bylaws.

MISSOURI CANCER PROGRAMS, INC.

■ Dr. John Yarbrow, Executive Director of Missouri Cancer Programs, Inc. stated that in 1971, legislation was developed to provide funding for cancer programs. The two main elements of this legislation were (1) to have available to each physician the information and drugs necessary to insure that the patient would get the best possible care and (2) to develop cooperative programs involving the joint efforts of people in cancer centers and the practicing physicians in order to improve the quality of cancer care at the local level. These cooperative programs could provide the practicing physician with access to new drugs and the latest treatment information which could be provided to his patient at a local hospital rather than referring a patient to a cancer center.

As a result of this legislation, Missouri Cancer Programs was formed. Missouri Cancer Programs is a joint effort on the part of the medical schools, osteopathic schools, the state cancer hospital and several other institutions to work on a statewide cancer program. Missouri Cancer Programs has applied for a grant and will have site visits in the near future.

During discussion of this program, Dr. Yarbrow pointed out that there was a program in Massachusetts, but he does not as yet know just what the Missouri program would entail.

A motion was made by Dr. Franklin to accept this report for information. Motion was seconded and carried.

Dr. Joseph White stated that he was representing the Board of the Missouri Cancer Programs, and that it was the intent of the Board to expand the membership of the Board to include representation from various organizations interested in cancer programs in the state. Dr. White stated that the Board would like for the MSMA to name a representative to the Board of the Missouri Cancer Programs. Dr. Eugene T. Hansbrough of Poplar Bluff was appointed to serve as MSMA representative on the Board of the Missouri Cancer Programs.—Referred to Reference Committee on Medical Education and Public Welfare.

REPORT OF THE FIELD SECRETARY

■ Mr. Wilson reported that at the last Council Meeting, he had indicated that he hoped to be able to shift emphasis on activities and attend more medical society meetings. He stated that he has not been able to do this to a great extent because of the need to maintain membership contact and information update.

Mr. Wilson reported that he had attended six different committee meetings in regard to HSA Area II. He expressed his appreciation to the Auxiliary for sitting in on these meetings and auditing them.

Mr. Wilson reported that he is trying to get more meaningful input into the urban areas. He indicated that he had done some groundwork in St. Louis.

Dr. Chandler stated that he had gotten some feedback on Mr. Wilson's work and all reports had indicated that the membership is highly appreciative of Mr. Wilson's work.—Referred to Reference Committee on Reports of Officers.

REPORT OF TASK FORCE ON "CERTIFICATE OF NEED LEGISLATION"

■ Dr. Ritter reported that some modifications had been made in the certificate of need legislation and he felt these would be acceptable to MSMA. Essentially, the modification would provide that physicians' offices would not be involved unless they are buying equipment that had a value of \$100,000 or more.

This legislation will be introduced into the Senate by Senators Murray and Spradling.

Dr. Ritter discussed an amendment proposed by the Osteopathic Association. Dr. Matthews stated that this legislation had been discussed by the Legislative Committee and a meeting had been held to discuss this with the osteopaths. Dr. Ritter indicated that there had been a test case on this legislation in Wisconsin.

After discussion on this legislation, motion was made by Dr. Bradshaw that the Council take no stand at the present time, but reconsider our position in January when more information is available. Motion was seconded and carried.—Referred to Reference Committee on Miscellaneous Affairs.

REPORT OF THE LEGISLATIVE COMMITTEE

■ Dr. Matthews reported that several malpractice bills had been pre-filed. These are as follows and Council approval is recommended:

Senate Select Committee Pre-Filed Bills:

Senate Bill 470—Maintains our excellent Statute of Limitations for the filing of malpractice suits within two years from the date of the act and proposes that a minor under the age of 6 would have until his 8th birthday to file suit and after the full age of 6 his rights would revert to the regular Statute.

Senate Bill 471—Establish medical malpractice review boards.

Senate Bill 472—Gives increased powers to the State Board of Registration for the Healing Arts.

Governor's Task Force Recommendations:

House Bill 1306—Roderick—Attempts to define informed consent to medical treatment.

House Bill 1307—Snowden—Provides for the elimination of the inclusion of dollar amounts in the demand in medical malpractice actions (ad damnum).

House Bill 1308—Meyer—Require reporting of medical malpractice claims to the Director of the Division of Insurance.

House Bill 1309—Meyer—Enabling legislation to establish JUA for professional liability insurance if needed.

House Bill 1312—Roderick—Would allow the admission of evidence of collateral sources of patient in medical malpractice actions.

On motion, seconded and passed, this portion of the report was approved.

Other Bills recommended for study and position later:

House Bill 1431—Raisch—Would establish a medical malpractice review panel.

House Bill 1433—Raisch—Believed to be the same as House Bill 1312 on collateral source rule.

House Bill 1447—Roderick—State of New Jersey sliding scale for attorneys contingent fee.

Bill to be opposed as recommended by Legislative Committee:

House Bill 1274—Stone—Change in Statute of Limita-

tions from two years from the date of act to two years from discovery for filing of actions.

The motion was made, seconded and carried to approve this portion of the report.—Referred to Reference Committee on Constitution and Bylaws.

■ The following death bills have been pre-filed:

House Bill 1082—Downing—Right-to-die legislation. Any individual could execute a document directing that no medical treatment designed solely to sustain the life processes should be utilized to prolong the individual's life at any time he is suffering from a terminal illness. Two physicians would have to certify that the person was suffering a terminal illness.

House Bill 1083—Downing—Definition of death for legal purposes. For all legal purposes, a human body with irreversible cessation of total brain functions according to usual and customary standards of medical practice shall be considered dead.

Senate Bill 670—Frappier—Provides means for determining when a person is dead and when death occurred.

House Bill 1406—Holt—Eliminates certain permits for removal of dead bodies.

House Bill 1407—Holt—Takes responsibility for filing of death certificates from a funeral director and places responsibility on a physician.

Concern was expressed that any definition of death might tie physicians to the establishment of criteria to determine when death occurs. These bills will be reviewed as they progress and positions taken later.

The motion was made, seconded and carried to approve this portion of the report.

Considerable discussion was held on the following three bills that provide for the licensing of allied health personnel:

1. Radiologic Tech bill; 2. A bill calling for the licensing of CRNAs; and 3. *House Bill 1054*—Brockfeld—A bill that would allow for the certification and regulation of physicians' assistants.

Several of the Councilors indicated that they would like to see copies of these three bills.

The motion was made, seconded and carried that copies of these three bills be sent to the Officers and Councilors in order that their opinions on these bills might be obtained.

The Council agreed to support *House Bill 1133* which calls for licensing of psychologists and they agreed to oppose *House Bill 975* calling for the licensing and practice of acupuncture. They also agreed to oppose *Senate Bill 622* which calls for the licensing of cardiology technologists.

Dr. Matthews stated that there is an unfilled bill drafted by the Attorney General that appears to eliminate dispensing of drugs by physicians. The Legislative Committee felt that this bill should be opposed.

The Legislative Committee also felt that *House Bill 1033*, which calls for the inclusion of Schedule V drugs under the same requirements of Schedules III and IV and *House Bill 1408* calling for the generic prescribing and sales of drugs and pharmaceuticals should be studied further.

It was agreed that *House Bill 1053*, which would eliminate the state formulary under Medicare, should be supported.

Dr. Matthews mentioned *House Bill 1165* which relates to controlled substances and *House Bill 1455* relating to drugs and prescriptions. He indicated that he had not as yet seen a copy of these bills.

The motion was made, seconded and carried to approve this portion of the report.

Dr. Matthews indicated that the following bills would be looked at more closely before a position would be taken:

House Bill 976—Youngdahl—Provides where the term *physician*, etc., in health, medical or accident policies is used. The term shall also include within its meaning dentists for any care, services, etc. which dentists are licensed to perform.

House Bill 1191—Mueller (62nd)—Would provide for continuation of benefits for physically handicapped or mentally retarded children under life and accident policies and health service contracts.

House Bill 1366, which would provide for hospital treatment of alcoholism under all group policies and contracts, has been pre-filed.

The following bills relating to mental health also have been pre-filed:

House Bill 1023—Scott—Would require state to assume cost of care for indigent patients.

House Bill 1277—Stone—Patients' rights in institutions of Department of Mental Health.

House Bill 1325—Volkmer—Relates to mental health.

House Bill 1364—Schlef—Establishes a program for prevention and control of alcoholism.

House Bill 1365—Schlef—Would decriminalize public drunkenness as an offense.

The motion was made, seconded and carried to approve this portion of the report.

A bill has been drafted, but not pre-filed, that would accomplish the recommendations of the State Board of Health Ad Hoc Committee on Family Physicians for Rural Missouri. This would establish family practice residency training programs in outstate Missouri. It was felt that further study of this bill should be made.

House Bill 1100, which would provide for financial aid for medical students, has been pre-filed and will be studied.

The motion was made, seconded and carried to approve this portion of the report.

The Legislative Committee recommended that we oppose *Senate Bill 667* which would extend the podiatry practice act to include the amputation of toes.

The motion was made, seconded and carried that MSMA oppose *Senate Bill 667* and *House Bill 1136*, which would provide for the appointment of one lay person to all Missouri professional and occupational licensing boards.

No position was taken on *Senate Bill 682*, which is the certificate of need legislation.

Dr. Matthews indicated that the following pre-filed bills will be watched during the upcoming legislative session and positions will be taken on them later:

Senate Bill 505—Schechter—Would change the consent requirements for performance of autopsy. Changes age to 18.

Senate Bill 491—Schechter—Relates to crippled children's services. Changes eligible age to 18.

Senate Bill 554—Wiggins—Would include near needy under Medicaid. Fiscal note of \$22 million.

Senate Bill 556—Wiggins—Authorized tax levies in larger counties to provide for emergency medical services and emergency communications.

Senate Bill 562—Gannon—Amends ambulance district law.

Senate Bill 606—Conway—Would establish joint legislative health affairs committee.

Several bills to eliminate sale of fireworks in Missouri.

House Bill 1135—Kostron—Would establish statewide the "911" emergency telephone number.

House Bill 1205—Treppner—Good Samaritan Bill.

House Bill 1245—Holt—Relates to radiation protection.

House Bill 1290—Riley—Establish in the Division of Health a program for hemophilia.

House Bill 1323—Volkmer—Relates to the practice of nursing.

House Bill 1009—Roderick—Would require fluoridation of water.

The motion was made, seconded and carried to approve the report as presented.—Referred to Reference Committee on Miscellaneous Affairs.

APPOINTMENT OF JOINT PRACTICE COMMITTEE

■ Dr. McAlhany appointed Dr. J. Russell Comer of Hannibal, to serve as Chairman of a committee of three from the MSMA to meet jointly with a similar committee of the Missouri Nurses Association as a joint practice committee to discuss mutual problems. Dr. Comer was requested to select the other two members of his committee.

NEXT COUNCIL MEETING

The Chairman stated the next Council Meeting will be held on Friday, January 30, and Saturday, January 31, 1976 at the Ramada Inn, Jefferson City. The Friday evening session will begin at 5 PM and the Saturday session will begin at 8 AM.

The regular Council meeting was adjourned and the Council went into a short Executive Session.—Referred to Reference Committee on Reports of Officers.

Meeting of Jan. 31, 1976

■ Howard J. McAlhany, M.D., Springfield, Chairman, called the meeting to order. Those present were Drs. McAlhany; R. Allen Chandler, Kansas City; Max S. Franklin, St. Louis; John I. Matthews, Jefferson City; Richard V. Bradley, St. Louis; James C. Cope, Columbia; John N. Martin, St. Joseph; J. Russell Comer, Hannibal; Donald Judd, St. Louis; Louis P. Hetlage, Troy; Robert E. Bregant, Jefferson City; William D. Bradshaw, Clinton; Andrew McCanse, Kansas

City; Claude W. Cooper, Thayer; E. T. Hansbrough, Poplar Bluff; Robert A. Slickman, Kansas City; Hubert A. Ritter, St. Louis; James T. Brown, Springfield; R. K. Noback, Kansas City; Samuel B. Guze, St. Louis; William C. Allen, Columbia; Mrs. William R. McPhee, Kansas City; Mrs. George Wilson, Columbia; and Messrs. Hollister S. Smith, St. Louis; Ray McIntyre, Royal O. Cooper, C. C. Swarens, Ron Ellison, and Don Wilson, Staff.

On motion, duly seconded, the minutes of the Dec. 13, 1975 Council Meeting were approved as printed.

TREASURER'S REPORT

Dr. Bradley reported that a full, audited financial statement of the Association for the year 1975 will be published in the March issue of *MISSOURI MEDICINE*. He indicated that the financial situation of the Association is in good order at this time. The Council accepted the report.

EXECUTIVE SECRETARY'S REPORT

The Executive Secretary said that a check has been written to Mercantile Mortgage Company of St. Louis for the remainder of the mortgage on the MSMA Headquarters Building at 113 Madison and it will be mailed to them in the next few days.

Mr. McIntyre reported that the Association had a net gain of 118 members during calendar year 1975 and membership is 4,790 as of Dec. 31, 1975.—Referred to Reference Committee on Reports of Officers.

■ He stated that there was a good physician turnout at the hearings of committees of both the Missouri Senate and the House on the malpractice bills presently before the General Assembly and indicated that he felt this was very important.

Mr. Swarens reported that we have had good news cov-

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*Present as 345.9 mg. of the calcium salt of fenoprofen dihydrate
equivalent to 300 mg. fenoprofen.

erage over the state on the present malpractice situation. He also stated that the news release on the MSMA-CME program received wide coverage. However, rural coverage was more extensive than in the metropolitan areas.—Referred to Reference Committee on Constitution and Bylaws.

■ Mr. Ellison stated that by next week, there will be 20 requested application forms for CME accreditation in the mail to various hospitals, specialty societies and county medical societies.—Referred to Reference Committee on Medical Education and Public Welfare.

■ Mr. McIntyre reported that Dr. Grebel would be unable to be at the Council Meeting due to illness. In view of this, he stated that the agenda item regarding "Status of PSRO Support Center" would not be discussed at this meeting. Dr. Ritter suggested that a suitable "get-well gift" be sent to Dr. Grebel with the Council's best wishes. On motion, duly seconded, it was agreed that such a gift be sent.—Referred to Reference Committee on Resolutions.

PRESIDENT'S REPORT

■ Dr. Chandler reiterated Mr. McIntyre's statement regarding the importance of physicians' attendance at legislative hearings and extended his appreciation to all for giving their time to attend the recent malpractice hearings.

He reported that he had attended the recent installation of officers of both the St. Louis Medical Society and the St. Louis County Medical Society and enjoyed attending these two functions. He visited the Troy hospital and was very impressed with it. He also attended the Jackson County Medical Society Installation Dinner and plans to attend the Greene County Medical Society Installation dinner.

APPOINTMENT OF EDITOR

On motion, duly seconded, the name of Dr. Joseph V. Finnegan was submitted for reappointment as the Editor of MISSOURI MEDICINE for 1976. The motion carried unanimously.

MSMA-MISSOURI NURSES ASSOCIATION JOINT PRACTICE COMMITTEE

Dr. Comer reported that the MSMA-Missouri Nurses Association Joint Practice Committee held their organizational meeting on January 30. He indicated that they felt more information concerning purposes and objectives is needed and an information packet will be provided to all members prior to the next meeting. Several objectives pointed out at the meeting were:

1. To establish a cooperative working relationship between the MSMA and the Missouri Nurses Association for improvement of medical and nursing practice for the citizens of the state of Missouri.

2. To develop joint resolutions dealing with joint practice issues for presentation to the MSMA Council and the Missouri Nurses Association Board of Directors.

3. To clarify the evolving roles of health care practitioners.

4. To study overlapping roles of physicians and nurses. Priorities discussed were as follows:

1. Review and understand Nurses Practice Act.
2. Survey activities at local levels for input to this MSMA-MoNA Committee.

3. Stay abreast of trends in other areas of nation.

The Council accepted Dr. Comer's report as information only.

REPORT OF MSMA WOMAN'S AUXILIARY

Mrs. McPhee reported that Auxiliary members also have been traveling to Jefferson City in support of the profession-

al liability bills now in the General Assembly and volunteered the Auxiliary's assistance in any future legislative matters. Many Auxiliary members also have been attending HSA meetings in their local areas across the state.

Mrs. McPhee indicated that she was pleased to report the organization of a new Auxiliary to the Mineral Area Medical Society and the initiation will be held on February 5.

The President of the Southern Medical Association Auxiliary will be a guest of the MSMA Auxiliary at the upcoming Annual Session in April.

Mrs. McPhee reported that the Missouri Nurses Association has distributed 300 of the posters for the Heimlich Maneuver for emergency treatment for food choking and the county societies are ordering these posters. She told the Council about some of the plans and additional activities which the Auxiliary will sponsor during the Annual Session.

Mrs. McPhee stated that she had heard several statements indicating that, possibly, county medical society auxiliaries felt that they had no influence, and she indicated that every doctor's wife can be helpful to the medical profession through her many contacts. The Council accepted the report of the Woman's Auxiliary with commendation.

MSMA DELEGATES' HANDBOOK MATERIAL

Mr. McIntyre asked that the Councilors please request that their medical societies submit any resolutions to be considered at the 1976 Annual Session to the MSMA Headquarters prior to February 13 so that they can appear in the Handbook. This is necessary in order that the Handbooks be in the hands of the Delegates 30 days prior to the opening session of the House, as stated in the MSMA Bylaws.

Dr. James Brown, Speaker of the MSMA House of Delegates, asked that if any Councilors have delegates who are interested in serving on a particular reference committee to send these names to the MSMA Headquarters Office. Lists of the delegates will be sent to the Councilors in the near future.—Referred to Reference Committee on Reports of Officers.

STATUS OF FEASIBILITY STUDY REGARDING A MUTUAL ASSESSMENT COMPANY ON MALPRACTICE INSURANCE

■ Dr. Cope reported that at the committee meeting held in November, it was pointed out that it would be necessary for 50% of the membership to participate with a reserve fund of \$4 million to \$5 million before it would be feasible for MSMA to initiate a mutual assessment company. A questionnaire was mailed to MSMA members to assess the interest of physicians in establishing such a company. To date, we have received approximately 1,800 returns. Dr. Cope requested that the Councilors ask members of their respective districts to please return the questionnaires if they have not already done so. When a sufficient number of questionnaires have been returned, they will be tabulated to determine physician interest in establishing a mutual assessment company.

Dr. McAlhany reported that the AMA has chartered its re-insurance company in Illinois. However, the actuaries have indicated that they must have at least five states participate and the AMA is presently waiting for input from state societies regarding this matter.

Dr. Ritter reported that the Certificate of Need legislation has been introduced into the General Assembly. As it is now written, however, it will probably not pass during this session.

It was pointed out that many of the people in state government who make decisions in the medical and health fields do not possess any health-related background. Dr. Ritter stated that he feels that physicians are not being adequately represented on most agencies, boards, etc. which are making important health-related decisions.—Referred to Reference Committee on Constitution and Bylaws.

LEGISLATIVE PROGRAM FOR TRAINING MORE
FAMILY PHYSICIANS FOR RURAL MISSOURI

■ Dr. Bradshaw reported that contacts are now being made to get sponsors for the legislation which has been written. It has not been introduced as yet, and it may be impossible to get this bill passed this session. However, this will be a start.—Referred to Reference Committee on Miscellaneous Affairs.

REPORTS OF DISTRICT COUNCILORS

■ *District #1*—Dr. Martin reported that there will be a First Councilor District Meeting in St. Joseph on February 12. He also extended his best wishes to Dr. Bradshaw on his new position at the University of Missouri-Columbia Medical Center as Director of Continuing Medical Education.

Dr. Martin stated that an AMPAC Workshop will be held in Washington, D. C. in the near future. It was indicated that the Council had authorized funds to sponsor a luncheon to honor Missouri's congressional delegation in conjunction with this AMPAC Workshop. This luncheon will again be planned for this year.—Referred to Reference Committee on Miscellaneous Affairs.

■ *District #2*—Dr. Comer reported that a Second Councilor District Meeting will be held on February 17 in Hannibal. Dr. Comer reported that the physicians in his district also are having problems with their professional liability insurance. He indicated that Dr. Lysle M. Bach, MSMA Vice-President, has attended the malpractice hearings in Jefferson City.

District #7—Dr. Irving H. Clark has been elected as the new President-Elect of the Jackson County Medical Society.

The Jackson County Medical Society's Ad Hoc Committee on Malpractice Legislation has been very active, and Dr. McCause strongly encouraged other medical societies to carry on this type of activity.

District #9—Dr. Cooper reported that the South Central Bar Association has invited the physicians in his area to attend their meetings. He felt that this is of great benefit to both the physicians and the attorneys.—Referred to Reference Committee on Constitution and Bylaws.

■ *District #10*—Dr. Hansbrough indicated that he appreciates receiving all of the county bulletins and enjoys reading them. He reported on what is happening in his area regarding HSAs and indicated that four M.D.s and one D.O. are on the Council.

Dr. Hansbrough directed the Council's attention to a letter he received from the St. Louis Blue Shield asking that inquiries on unpaid claims not be made since this causes further delay.

Dr. Ritter indicated that it is his understanding that this past fall, there was a large increase in Blue Shield claims and, possibly, this has some bearing on the length of time involved in the payment of claims. It was pointed out that it is possible that the reason for delay is due to the fact that Blue Shield does not accept the standard insurance claim form and, perhaps, they should appraise their method of handling claims.

It was moved that a letter be written to St. Louis Blue Shield indicating that this problem has been called to the Council's attention, it is a matter of concern and the Council desires to be kept informed on the situation. The motion was seconded and carried. It was pointed out that it is hoped that a response will be received from Mr. Hughes so that the information can be disseminated to the practicing physicians of this state.

District #8—Dr. McAlhany reported that Dr. David Hall will be installed this evening as President of the Greene County Medical Society by President R. Allen Chandler. Dr. James Sammons, Executive Vice-President of the AMA,

will be the featured guest speaker at the Annual Installation.

Dr. McAlhany, Dr. Franklin and Royal O. Cooper from the MSMA Staff attended the AMA Leadership Conference in Chicago recently. This consisted of seven seminars which were very informative and worthwhile.

During this meeting, an up-to-date report was received from the legal counsel of the AMA on a complaint filed by the FTC regarding advertising relating to Section 5 of the AMA Code of Ethics.

It was brought out at the Chicago Conference that if there are any physicians who feel they have been aggrieved by Aetna Life and Casualty Company, this be reported to the AMA Council on Medical Services. They will contact the company rather than the individual physician and this will probably have more influence than one physician.

Districts #3, #4, #5 and #6 indicated that they had no report at this time.—Referred to Reference Committee on Resolutions.

■ Dr. Cope called the Council's attention to the fact that the House of Delegates had authorized the hiring of two field persons. The second has not been hired as yet.

Dr. Cope stated that he feels that the second man should concentrate his efforts on keeping abreast of governmental regulations and attending meetings such as HSAs, CHP, and county medical societies so that we can be kept aware what is happening in the governmental arena.

Dr. Bregant moved that it is essential that the second man, previously intended to be a second field man, be employed to concentrate his efforts as outlined above but, also, to include some field work and, especially, contacts with specialty societies. The motion was seconded and carried.—Referred to Reference Committee on Reports of Officers.

REPORTS OF THE DEANS

■ Dr. Noback indicated that there are continuing funding problems for the Medical School. However, this is not unique with UMKC. Budget pressures are very real. A bill passed during the last session of the General Assembly provides for state financing of city-county hospitals. This bill has been funded at 10% of the authorized amount. The lack of funding under this bill has had a definite impact on Kansas City General Hospital. It was pointed out that Missouri ranks 44th to 47th throughout the nation in per capita support of higher education.

Dr. Noback reported that he has been advised by one of the Foundations granting loans to medical students that their loan fund will be doubled next year.

Dr. Noback indicated that ten faculty members and 20 students will go to China as an invited delegation. This will be a three-week trip.

Dr. William Allen, reported that Dean Lobeck of MU-Columbia was sorry to miss the Council meeting. However, he had to be in Chicago. Dr. Allen reiterated Dr. Noback's concern that the state of Missouri ranks as low as it does in its support of higher education.

Dr. Ritter, speaking on behalf of Dr. Challoner, reported that several new faculty members have been appointed to the St. Louis University School of Medicine.

He further reported that the St. Louis University students ranked eighth on the national level on the first part of the national board examinations.—Referred to Reference Committee on Medical Education and Public Welfare.

COMMISSION ON MEDICAL ECONOMICS

■ The Commission adopted Dr. Heeb's report of the Physician Advisory Subcommittee to the Division of Family Services (Medicaid). During the discussion, several other ques-

tions concerning the Title XIX program were raised by those present. Dr. Froelich contacted this agency and furnished the Commission with the following information. The publication of the Medicaid Handbook has been delayed. It should be in the hands of physicians within 90 days. It was determined that noncovered services under Medicaid will be specified in the Handbook. Additional information on the Handbook is contained in paragraph #3 of Dr. Heeb's report. The Division of Family Services requested physicians' cooperation in determining if the Welfare recipient does have private insurance. The Division of Family Services recovers a large amount of money from welfare recipients who also have insurance.

The Commission recommended that Dr. Heeb's Ad Hoc Committee discuss the following with the Division of Family Services:

Resolved, That all fees collected from insurance companies by the Division of Family Services under the Medicaid program be used to reimburse the physician performing the service to the extent of his usual fee for the service performed. This would allow the physician to recover up to the amount of his usual fee from the third party, even though they have been reimbursed under Medicaid for the service performed.

Dr. Heeb's Committee also was asked to determine if the money recovered by the Division of Family Services is deposited into general revenue or if it is retained by the Division of Family Services as further funding for the Medicaid program. If it is determined that these funds are going into general revenue, Dr. Heeb's Committee is to request that this be changed.

Dr. Hetlage discussed coordination of benefits under health and accident policies. It was requested that a report on coordination of benefits be prepared by staff and furnished to the members of the Commission within a reasonable time.

The Commission then discussed Resolution #2—"Invasion of Patient Privacy by Governmental Agencies," from the MSMA House of Delegates-1975. At the request of the Commission, Dr. Robert Deitchman, President of St. Louis County Medical Society, prepared a resolution on doctor-patient confidentiality as follows:

DOCTOR-PATIENT CONFIDENTIALITY

WHEREAS, The founding fathers of our Republic were concerned with pursuit of life, liberty and that of happiness, and

WHEREAS, Ever since the health and care of the ill has been the concern and training of those dedicated to medicine, and

WHEREAS, Every oath, every teaching and the entire structure of the American concept of privacy has been protected by law and regulation since our Republic was born, and

WHEREAS, Similarly, every oath and teaching of physicians and the structure of our medical practice has been lodged firmly and solidly upon the concept of the doctor-patient relationship, and

WHEREAS, The physicians of all medical practice have entrusted to their care and skill, not only the individual patient's medical problems, mental and emotional as well as physical, the imparting of all specific information of the patient given to the doctor is with the assurance and promise of confidentiality, and

WHEREAS, It is apparent from the growing science of electronic computers and other recording devices which are growing with such rapidity that at the present time, much information has already been confined to magnetic tapes and wires and recording devices, and

WHEREAS, It is now very clear there are few limitations and practically no safeguards that can protect the information so stated on tapes and wires that within our own republican governmental bodies, they have been unable to protect even private or governmental activity from being recorded, re-recorded, transferred and open to so many channels for subversion and obtaining of any information so stored on tapes or wires, therefore, be it

Resolved, That the Missouri State Medical Association goes on record, strongly and clearly, that to the best of our physicians' ability as individuals or as societies to stand guard against any device that threatens the keystone of our doctor-patient relationship confidentiality which will be respected and protected, and be it further

Resolved, That the Missouri State Medical Association asks that every precaution, every possible restriction be elected and selected to protect that doctor-patient confidentiality and urge and pray that at no time will it be violated or ruptured carelessly or willingly, and be it further

Resolved, That an ad hoc committee be named by the Council of the Missouri State Medical Association to further study this problem of protection and guardianship of the keystone of our medical practice, and be it further

Resolved, That this ad hoc committee gathers all ideas and evidence concerning this subject and present it to the Assembly at the 1977 meeting of the House of Delegates for their action.

A motion to accept this resolution as presented by the Commission was made, seconded and carried.

On motion, the Commission recommends that Dr. Deitchman be commended for his thoughtful remarks, that this statement be adopted by the MSMA as policy and that the Ad Hoc Committee mentioned in the resolution be activated and report at the 1977 Annual Session of the House of Delegates.

Dr. Peterson briefly discussed the recent CHAMPUS reimbursement changes promulgated by the Department of Defense through St. Louis Blue Shield as fiscal administrator. The directive changes the CHAMPUS program from a UCR plan to one that will reimburse at the 75th percentile based on 1974 prevailing charges. It was pointed out that this is a further unilateral action of a third party which will reduce medical care for patients that Missouri physicians are presently treating.

The Commission recommends that all members be notified of this change in CHAMPUS regulations, and that it is a unilateral decision of a third-party payor which further imperils the good medical care of a very deserving segment of our citizens. The Commission also recommends that this entire subject be referred to the AMA for further referral to the new Division of Negotiations.

Royal O. Cooper briefly discussed legislation affecting the Medicaid program that has been introduced into this session of the General Assembly. The Commission recommends that the Legislative Committee and the Council support the "open formulary" bill that has been introduced by Dr. Roderick. The Commission briefly discussed payments to chiropractors under Title XIX.

Resolution #38—PL 92-603 on PSRO was discussed by Dr. Braverman. This resolution was referred by the House of Delegates for further study and clarification. Dr. Braverman stated that he had visited with the sponsor of the resolution and that the resolution basically contained three main points. The first point concerned the implementation of the pre-admission certification requirements. It was pointed out that the AMA had been successful with its suit and, therefore, no further action is needed on this section of the resolution. The second portion of the resolution requested that the Association advise all practicing physicians and hospital medical staffs of option #3 which provides that if a staff committee of physicians of a hospital, etc., has not been established to carry out all of the utilization review functions prescribed, a group or committee may be sponsored and organized to perform the utilization review functions by the Secretary of HEW. The Commission recommends that members be notified of this provision.

The third point of this resolution requested that the MSMA insist on the repeal of PSRO. The Commission recommends that this portion of the resolution not be adopted. It further recommends that the MSMA's policy statement on PSRO be reiterated for the benefit of MSMA members.

The proposed amendments to Medicare and Medicaid as outlined in the AMA Board of Trustees Report CC were discussed at length. Report CC recommends that the AMA express grave concern about proposed legislation that contemplates substantial changes in Title XVIII and Title XIX of the Social Security Act sufficient to discourage physician participation in these federal programs. The Board of Trustees further recommends that, in keeping with established policy, physicians should have freedom to enter into arrangements providing fair compensation for their professional services taking into consideration variations in practice

patterns; that physicians' services should be reimbursed at usual, customary and reasonable rates; that direct billing should be available to all physicians; and that no one arrangement for reimbursement of specified specialists should be mandated in federal laws or regulations.

The Commission recommends that the MSMA share the concerns expressed by the Board of Trustees with appropriate members of the Missouri Congressional delegation.

Dr. Laird, Chairman of the Ad Hoc Blue Cross Committee, reported that his Committee has obtained information from the Missouri Hospital Association concerning the St. Louis Blue Cross Hospital reimbursement policy. Dr. Laird mentioned that as soon as a new contract is developed by St. Louis Blue Cross, his committee will meet with a similar committee of the Hospital Association and representatives of St. Louis Blue Cross to discuss hospital reimbursement.

The motion to accept this report was made, seconded and carried.—Referred to Reference Committee on Resolutions.

REPORT OF COMMITTEE ON LEGISLATIVE AFFAIRS

■ Dr. Matthews stated that the Senate malpractice bills had been reported out of Committee as Do Pass. The Committee offered substitute bills to the floor of the House. Six House malpractice bills have been heard and, hopefully, will be reported out Do Pass by the Committee early next week.—Referred to Reference Committee on Constitution and Bylaws.

■ Dr. Matthews stated that a hearing had been held on the physician assistants bill. Some amendments that were offered to the bill might change the MSMA position of support on this bill. Two bills which the MSMA supported, HB 1100 (Aid to Medical Students) and SB 781 (Use of Patients and Inmates for Human Experimentation), have had committee hearings. Senate Bill 667, which defines the practice of podiatry, was amended and recommended Do Pass by the Senate Committee. The MSMA has actively opposed only one bill—HB 975, the Acupuncture bill.

The motion to accept this portion of the report was made, seconded and carried.

Dr. Matthews stated that since the last Council meeting, several bills had come up that might require a position by the MSMA. These include *House Bill 1510*, which would reduce the penalty for possession of small amounts of marijuana.

After considerable discussion of this bill, a motion to support this bill was made, seconded and carried.

Another bill that requires a MSMA position is *House Bill 1680*, which is a substitute for the bill which would have placed a lay member on the Board of Healing Arts. HB 1680 would allow any person to file a complaint with the Administrative Hearing Commission against anyone licensed by the state.

A motion to oppose this bill was made by Dr. Hansbrough. The motion was seconded and carried.

Dr. Matthews reported that the following three bills would require Council action:

HB 1406, which is a substitute proposal worked out by the Division of Health, funeral directors and the MSMA dealing with the transportation of bodies.

SB 670, which would define death as occurring when a physician opines that the victim has experienced an "irreversible cessation of spontaneous respiratory and circulatory functions" or an "irreversible cessation of spontaneous brain functions."

SB 756, which would establish requirements for registration and certification of drug and alcohol treatment facilities.

The motion that MSMA support these three bills was made, seconded and carried.

The MSMA will oppose *SB 829*, which would remove the requirement that the Director of the Division of Mental Health be a physician.

Considerable discussion was held on the Certified Registered Nurse Anesthetist bill.

A motion to approve of the administration of anesthesia only by physicians, dentists and CRNAs was made, seconded and carried.—Referred to Reference Committee on Miscellaneous Affairs.

■ The Council considered a letter from the Medical Society of the State of New York enclosing a resolution adopted by that Medical Society in October, 1975 opposing the use of Social Security numbers as a universal numbering identifier. There seems to be a growing use of these numbers with the possibility that the Department of HEW soon may be directing that all medical records collected for PSRO purposes contain the patient's and the physician's Social Security number.

The New York Medical Society letter requested support of its resolution or one similar—such to be sent to them, along with other state statements so that a package of opposition to this Social Security-number usage will be sent to the Secretary of HEW as well as to selected Senators and Congressmen.

The Council adopted a resolution accordingly and directed that it be sent to the AMA as well as the Medical Society of the State of New York.—Referred to Reference Committee on Resolutions.

NEXT COUNCIL MEETING

■ Chairman McAlhany indicated that the next meeting of the Council will be held at 3 PM on Wednesday, March 31 at the Crown Center Hotel in Kansas City. There will be no executive session prior to this meeting.

Because of increasing difficulty in securing desirable dates for Council Meetings, it has become desirable to select dates and places much further ahead than has been necessary in the past. Accordingly, this was discussed by the Council and the first meeting of the Council following the 1976 Annual Session will be held on Saturday, May 22 with an Executive Session on Friday evening, May 21 at the Ramada Inn, Jefferson City.

The meeting adjourned.—Referred to Reference Committee on Reports of Officers.

Supplementary Council Report

Dr. McAlhany presented a supplementary report on the Council Meeting held on Wednesday, March 31, 1976 in The Shawnee Room at the Crown Center Hotel. He reported as follows:

"The Council of the Missouri State Medical Association met on Wednesday, March 31, 1976 in the Shawnee Room of the Crown Center Hotel in Kansas City with Dr. Howard J. McAlhany, Chairman, presiding.

"The Chairman called for approval of the minutes of the Council meeting on Jan. 31, 1976. On motion, duly seconded, the minutes were approved.

"The Executive Secretary reported that staff had compiled a scrapbook of newspaper clippings on the malpractice situation and commented that much publicity has been received on this.

"He stated that the MSMA should be thankful to the specialty groups for their efforts in sponsoring the scientific sessions during this upcoming Annual Session.

"In the absence of the Treasurer, Mr. McIntyre reported that in February, 1976, the Association paid the mortgage

on the Association Headquarters building at 113 Madison Street in Jefferson City, Mo. He said that the MSMA now owns the building and it is free of all financial liens.

"He stated that the audited financial report of the Association for the year 1975 has been published in the March issue of *MISSOURI MEDICINE* and also appears in the Handbook of all the Delegates attending this 1976 Annual meeting.

"President Chandler reported on several meetings he had attended since the previous Council meeting.

"He stated that a telephone conference was held with Dr. Herbert Domke of the Division of Health, the President of the Missouri Osteopathic Association and the Missouri Nurses Association regarding the swine influenza situation and the need for setting up a coordinating committee to initiate action for immunization in Missouri. A national meeting of public health officials will be held in Atlanta regarding this. Dr. Domke, along with a Jackson County pediatrician representing the MSMA, will attend this meeting.

"The Chairman of the Council then introduced the new Executive Director of the Greene County Medical Society, Mr. James E. Thompson, Jr.

"The next order of business was the report from Mrs. William R. McPhee, President of the MSMA Woman's Auxiliary. You have just heard her report and I shall not repeat those remarks. She thanked the Council for its support and encouragement during her year as President, and the Chair accepted her report with commendation.

"The next Council meeting will be held on May 22 at the Ramada Inn in Jefferson City, with an executive session on Friday, May 21 at 5 P.M. Dr. James Brown, Speaker of the House of Delegates, then introduced Dr. Edwin K. Burford, Vice-Speaker of the House.

(The Speaker referred this portion of the report to the Reference Committee on Reports of Officers.)

"Dr. Irving Clark, Chairman of the Commission on Medical-Legal Affairs, reported that a Commission meeting was held jointly with the Missouri Bar Association and the Missouri Osteopathic Association in February.

"Discussion was held regarding the pretrial screening panels that are presently operating in Kansas City and St. Louis. The Commission recommends that the present voluntary panels be retained and that additional panels be established in other areas of the state.

"The Commission suggested that a medical-legal page be published in *MISSOURI MEDICINE*.

"It was moved and seconded to accept the report of the Commission on medical-legal affairs. The motion carried.

"Mr. Royal Cooper reported that 547 physicians are presently insured under the new Missouri State Medical Insurance Inc. (MSMI). The total premiums to date are approximately \$1,150,000. The annual meeting of the MSMI will be held on Friday, April 2.

"Mr. Cooper asked for Council permission for Dr. McAlhany, Dr. Clark and himself to have proxy voting privileges for MSMA stock in the MSMI. The MSMA is the sole stockholder of the MSMI. This privilege was granted.

(The Speaker referred this portion of the report to the Reference Committee on Constitution and Bylaws.)

"Dr. Cope, Immediate Past-President of the MSMA, reported that many things have been accomplished during his tenure on the Council. He distributed a Bicentennial pamphlet authored by himself and printed by Dr. Lewis Garrotto, which depicts some of the activities of physicians 200 years ago.

(The Speaker referred this portion of the report to the Reference Committee on Reports of Officers.)

"Dr. Bradshaw reported that he has moved from the Sixth Council District to become the Director of Continuing Medical Education at the University of Missouri-Columbia. He said that an election will be held on Friday morning to select a new Sixth District Councilor.

"Dr. Bradshaw also reported that 23 applications have been received seeking CME accreditation. To date, only one of these has been approved. He indicated that he would certainly welcome suggestions regarding the development and expansion of continuing medical education in Missouri.

"The Chairman commended both Dr. Cope and Dr. Bradshaw for their years of service to the MSMA.

(The Speaker referred this portion of the report to the Reference Committee on Medical Education and Public Welfare.)

"Dr. Cope reported that a second mailing was made in regard to a mutual assessment company and there have not been a sufficient number of favorable returns to provide the 50% penetration felt necessary to establish a mutual assessment company.

"A mutual assessment company, Medical Defense Associations, Ltd., has recently been established in the Springfield area. Mr. Robert Haswell, General Agent for Medical Defense Associates, Ltd., gave the Council a brief rundown on the establishment and operations of this company for their information. A mailing explaining the company and its method of operation has been sent to most of the physicians in Missouri. Mr. Haswell said that he will be available in Room 1541 of the Crown Center Hotel during this Annual Session for physicians desiring further information regarding Medical Defense Associates, Ltd.

"Following Mr. Haswell's presentation, it was moved that the Ad Hoc Committee to Study the Feasibility of a Mutual Assessment Company be given the charge of looking into the Medical Defense Associates, Ltd. insurance company in detail and report back to the Council on its findings. The Committee may obtain legal counsel in its deliberations if so desired. The motion was seconded and carried.

(The Speaker referred this portion of the report to the Reference Committee on Constitution and Bylaws.)

"Dr. Joseph V. Finnegan, Editor, recommended that the present Publications Committee be reappointed. This motion was approved by the Council.

"Dr. Finnegan said that he would like to suggest a few changes on the Editorial Board. He was asked to report these suggestions to the Council at its meeting on Sunday, April 4.

"The Chairman expressed to Dr. Finnegan the MSMA's gratitude for the splendid job he does as Editor of *MISSOURI MEDICINE*.

"Dr. David Challoner, Dean of St. Louis University School of Medicine, stated that the University will support Dr. Hubert Ritter in his candidacy for the AMA Board of Trustees.

"He reported that a new department of Radiation Oncology has been established and a Chairman appointed. He also indicated that there will be a large increase in tuition for the coming year since capitation funding will be much smaller than in previous years.

"The Chairman then introduced to the Council the new Executive Secretary of the State Board of Registration for the Healing Arts, Mr. Gary Clark.

(At this time, the Speaker introduced Mr. Clark to the House of Delegates.)

"Dr. Hubert Ritter encouraged all Councilors and Officers

to become sustaining members of the Missouri Medical Political Action Committee.

(The Speaker referred this portion of the report to the Reference Committee on Reports of Officers.)

"In the absence of Dr. Jack Matthews, Chairman of the Legislative Committee, Mr. Cooper gave the following legislative report:

"Senate Bill # 470, which extends our present Statute of Limitations "two years from the act" to minors over the age of six and changes the Statute to "two years from discovery" in the case of negligently leaving a foreign object in the body, and Senate Bill # 472, which expands the authority of the Board of Healing Arts have been reported out of the House Public Health Committee, DO PASS.

"Senate Bill # 471, which would establish a system of statewide review panels, was not brought out of the Committee. New amendments to this Bill should be ready in the immediate future.

"House Bill # 1307, which eliminates the ad damnum clause; HB # 1308, which requires insurance companies to report malpractice suits to the State Division of Insurance; House Bill # 1309, which gives the State authority to create a joint underwriting association; and House Bill # 1312, which provides that other collateral sources of payment would be admissible in Court, were perfected on Tuesday and should be third read and passed by the House soon. House Bill # 1447, which would set up a sliding scale on attorney contingent fees, was put on the informal calendar by the sponsor.

(The Speaker referred this portion of the report to the Reference Committee on Constitution and Bylaws.)

"House Bill # 975, Acupuncture; House Bill # 1408, Generic Prescribing; and Senate Bill # 829, which would have dropped the requirement that the Director of the Division of Mental Health be a physician, will not pass the Legislature this year.

"Senate Bill # 682, Certificate of Need, and House Bill # 1681, which would have transferred some of the Board of Healing Arts powers to the Department of Consumer Affairs, were killed during floor debate.

"Senate Bill # 670, Definition of Death, is in a position for possible passage by the Senate.

"House Bill # 1209, the Good Samaritan Bill, and House Bill # 1285, which would mandate payment for chiropractic treatments under Medicaid, are still on the perfection calendar and probably will not be reached this year."

"Mr. Cooper also reported that the Senate has set up an interim committee to study various aspects of health and medical care and to report its findings at the next general assembly.

(The Speaker referred this portion of the report to the Reference Committee on Miscellaneous Affairs.)

"Mr. Speaker, this concludes the supplementary report of the Council."

(The supplementary report of the Council was accepted.)

NOMINATING COMMITTEE

Dr. Chandler named the following members to the Committee on Nominations:

Dr. Ernest E. Wadlow, *First District*; Dr. Robert W. Buben, *Second District*; Dr. James M. Stokes, *Third District*; Dr. Robert B. Deitchman, *Fourth District*; Dr. Robert H. Tanner, *Fifth District*; Dr. James E. Block, *Sixth District*; Dr. Irving H. Clark, *Seventh District*, Chairman; Dr. Henry

B. Ivy, *Eighth District*; Dr. W. Thomas Morgan, *Ninth District*; and Dr. Harold B. Rapp, *Tenth District*.

At this time, Dr. Chandler presented the checks for the American Medical Association-Educational and Research Foundation (AMA-ERF) Grants to the representatives of the four medical schools in Missouri. He explained that the grants represent Missouri's portion of more than \$1.2 million which will be awarded to various medical schools throughout the nation this year. The grants are made possible by contributions to the AMA-ERF from medical society auxiliaries, medical societies and friends of medicine.

The amount of the AMA-ERF grants presented to the medical schools and their representatives are as follows: \$10,896, Washington University School of Medicine, represented by Dr. James Stokes; \$7,065, University of Missouri-Columbia School of Medicine represented by Dr. William Allen; \$15,695, St. Louis University School of Medicine represented by Dr. George Thoma; and \$5,335, University of Missouri-Kansas City School of Medicine represented by Dr. Richardson K. Noback.

Unfinished Business

The Speaker called for unfinished business. There being none, the Speaker called for introduction of new business.

Introduction of New Business

The Speaker noted that since Resolutions # 1 through # 42 had been submitted in time for inclusion in the Delegates Handbook, their introduction from the floor is not required. These resolutions are as follows:

Resolution # 1—MSMA District Vice-Councilor

(Introduced by Frederick D. Peterson, M.D., St. Louis County Medical Society)

WHEREAS, There is a continuing and mounting demand on the time and energies of our Councilors, both on a state and local level, therefore be it

Resolved, That each Councilor District elect an official Vice-Councilor, and be it further

Resolved, That each such Vice-Councilor shall be encouraged to attend and participate in all meetings of the Council except to vote unless the Councilor be absent, and be it further

Resolved, That the Bylaws of the Missouri State Medical Association be amended to provide a Vice-Councilor for each councilor district.

(Referred to Reference Committee on Constitution and Bylaws.)

Resolution # 2—Definition of Death

(Introduced by Frederick D. Peterson, M.D., St. Louis County Medical Society)

AN ACT

Providing means for determining whether a person is dead and when death occurred, and providing the purposes for which the means shall be used.

BE IT ENACTED BY THE GENERAL ASSEMBLY OF THE STATE OF MISSOURI AS FOLLOWS:

Section I. I. A person shall be considered dead if in the announced opinion of a physician, based on ordinary standards of medical practice, he has experienced an irreversible cessation of spontaneous respiratory and circulatory functions. In the event that artificial means of support preclude a determination that these functions have ceased, a person shall be considered dead if in the announced opinion of a physician, based on ordinary standards of medical practice, he has experienced an irreversible cessation of spontaneous brain functions. Death shall have occurred at the time when the relevant functions ceased.

2. The means of determining death in subsection I shall be used for all purposes in this state, including the trials of civil and criminal cases.

DEFINITION OF DEATH

WHEREAS, There is a continuing need for donor organs for transplant, therefore, be it

Resolved, That the Missouri State Medical Association Meeting in Kansas City, Missouri at its 118th Annual Session goes on record in support of the current legislation pending in the Missouri State Legislature concerning the definition of death, and be it further

Resolved, That copies of the resolution be sent to each of the Missouri State Senators and Representatives.

(Referred to the Reference Committee on Miscellaneous Affairs.)

Resolution # 3—Doctor-Patient Confidentiality

(Introduced by Robert B. Deitchman, M.D., St. Louis County Medical Society)

WHEREAS, The founding fathers of our Republic were concerned with the pursuit of life, liberty and that of happiness, and

WHEREAS, Ever since the health and care of the ill has been the concern and training of those dedicated to medicine, and

WHEREAS, Every oath, every teaching and the entire structure of the American concept of privacy have been protected by law and regulation since our Republic was born, and

WHEREAS, Similarly every oath and teaching of physicians and the structure of our medical practice have been lodged firmly and solidly upon the concept of the doctor-patient relationship, and

WHEREAS, The physicians of all medical practice have entrusted to their care and skill, not only the individual patient's medical problems, mental and emotional as well as physical, the imparting of all specific information of the patient given to the doctor is with the assurance and promise of confidentiality, and

WHEREAS, It is apparent from the growing science of electronic computers and other recording devices which are growing with such rapidity that at the present time much information has already been confined to magnetic tapes and wires and recording devices, and

WHEREAS, It is now very clear there are few limitations and practically no safeguards that can protect the information so stated on tapes and wires that within our own republican governmental bodies, they have been unable to protect even private or governmental activity from being recorded, re-recorded, transferred and open to so many channels for subversion and obtaining of any information so stored on tapes or wires, therefore, be it

Resolved, That the Missouri State Medical Association goes on record, strong and clear, that to the best of our physicians' ability as individuals or as societies to stand guard against any device that threatens the keystone of our doctor-patient relationship confidentiality which will be respected and protected, and be it further

Resolved, That the Missouri State Medical Association asks that every precaution, every possible restriction be elected and selected to protect that doctor-patient confidentiality and urge and pray that at no time will it be violated or ruptured carelessly or willingly and, be it further

Resolved, That an ad hoc committee be named by the Council of the Missouri State Medical Association to further study this problem of protection and guardianship of the keystone of our medical practice and, be it further

Resolved, That this ad hoc committee gathers all ideas and evidence concerning this subject and present it to the Assembly at the 1977 Meeting of the House of Delegates for their action.

(Referred to the Reference Committee on Resolutions.)

Resolution # 4—Informed Consent

(Introduced by Noel F. Weyerich, M.D., St. Louis County Medical Society)

WHEREAS, There is a need to establish a definition of the concept of informed consent, and

WHEREAS, The present methods for obtaining informed consent are non-uniform, and

WHEREAS, The manner of documenting informed consent is highly variable and, thus, legally difficult to establish, and

WHEREAS, It is desirable that there be a uniform method of establishing informed consent, therefore, be it

Resolved, That the Missouri State Medical Association determines uniform and proper forms for informed consent and petitions the Missouri State Legislature to recognize such forms by legislative act or acts.

(Referred to the Reference Committee on Constitution and Bylaws.)

Resolution # 5—Role of Commission on Interspecialty Medicine

(Introduced by Clay County Medical Association)

PREAMBLE: There appears to be an increasing need for an active and ongoing program whereby the medical profession in the State of Missouri can (1) remain informed on public attitudes; (2) investigate and study medical and health care conditions; (3) identify medical and health care problems and (4) formulate appropriate solutions to said problems through organized professional action, public education or legislation. By its very nature, such an effort *must* involve all medical disciplines. Some problems affect the entire profession regardless of field of practice. Other problems may affect only one discipline or a small group of specialties. In either instance, the entire profession should be aware of the problem; and, ideally, the entire profession should join in a united effort to resolve the problem and to keep the public informed whenever its interests or welfare are involved or threatened.

It appears that this was the intended role of the Commission on Interspecialty Medicine. However, it is our opinion that the full powers and capability of the Commission have not been utilized.

In this context we propose the following:

Resolved, That the House of Delegates of the Missouri State Medical Association interprets the formal (Bylaws) charge to the Commission on Interspecialty Medicine as follows:

1. The Commission shall, through its individual specialty representatives, maintain *ongoing and continuing* surveillance of the medical and health care needs in the State of Missouri and of the medical and health care attitudes of the citizens of Missouri.
2. The Commission shall study and evaluate said needs and attitudes and shall plan appropriate courses of responsive action for the Association to consider.
3. In matters relating to public education and information, the Commission is authorized to seek the assistance of and to work with the Commission on Public Affairs;
4. In matters requiring legislative remedy, the Commission is authorized to seek the assistance of and to work with the Committee on Legislative Affairs; and be it finally

Resolved, That the individual disciplines of medicine be urged to work through the Interspecialty Commission in order that the profession remain harmonious, united and effective in the State of Missouri.

(Referred to the Reference Committee on Medical Education and Public Welfare.)

Resolution # 6—Involvement of Medical Students

(Introduced by Boone County Medical Society)

WHEREAS, It has become apparent to physicians in recent years that it is to our advantage to get Medical Students interested in organized medicine early and,

WHEREAS, The Missouri State Medical Association has recently admitted two Medical Students from each Medical School to the House of Delegates of the MSMA, and,

WHEREAS, This does not really give a broad number of Medical Students exposure to organized medicine in our state, and,

WHEREAS, The Missouri Academy of Family Physicians has for the past several years invited Medical Students to its annual meeting at the Lake of the Ozarks, and in 1975 invited students from all four medical schools in the state, and,

WHEREAS, The expenses of the Medical Students were paid for by voluntary contributions from members of the Academy, be it, therefore,

Resolved, That the Missouri State Medical Association studies the feasibility of inviting Medical Students from the State of Missouri to its annual session, and the expenses of the Medical Students to be paid for by voluntary contributions from the members of MSMA.

(Referred to the Reference Committee on Medical Education and Public Welfare.)

Resolution # 7—Student Delegate Appointments to Reference Committee

(Introduced by Mark Kasten, Medical Student Delegate)

WHEREAS, Article IV of the Constitutions of the Missouri State Medical Association established a category of "student delegates" to the Association's House of Delegates and granted said "student delegates" the "same rights and privileges as other delegates"; and

WHEREAS, The eight student delegates to the Missouri State Medical Association represent a significant number of persons who are interested in the programs and policies of the Association specifically and of the medical profession generally; and

WHEREAS, The names of student delegates are known and available at least one month prior to annual sessions of the Association's House of Delegates; now, therefore, be it

Resolved, That the Speaker of the House of Delegates be encouraged to appoint student delegates to reference committees of the House in order that said students might further their own understanding and knowledge of organized medicine and might provide the House with another perspective on the matters which it has under consideration.

(Referred to the Reference Committee on Reports of Officers.)

Resolution # 8—Seating for Student Delegates

(Introduced by Mark Kasten, Medical Student Delegate)

WHEREAS, Article IV of the Constitution of the Missouri State Medical Association established a category of "student delegates" to the Association's House of Delegates and granted said "student delegates" the "same rights and privileges as other delegates"; and

WHEREAS, The student delegates who were subsequently seated in the House of Delegates have consistently demonstrated their interest in the activities of the House by their nearly perfect attendance record; and

WHEREAS, Other delegates to the House enjoy designated and restricted seating areas where they and colleagues from their Councilor District may congregate and confer on matters coming before the House; and

WHEREAS, No designated and restricted seating area has been assigned to student delegates; now, therefore, be it

Resolved, That the Speaker of the House of Delegates be instructed in planning the seating arrangement of the House to provide an area comparable to the Councilor District areas, which shall be designated as the "Student Delegates" area.

(Referred to Reference Committee on Reports of Officers.)

Resolution # 9—Malpractice Suits

(Introduced by Max S. Franklin, M.D.,
St. Louis Medical Society)

WHEREAS, In many so-called malpractice suits, Missouri physicians are found innocent, and

WHEREAS, At the present time, patients and their attorneys serve no penalty in these "frivolous" malpractice suits, and

WHEREAS, The threat of some penalty might deter the filing of such suits, therefore, be it

Resolved, That Missouri physicians found innocent in malpractice suits will be assisted by Missouri State Medical Association legal consultants in filing countersuits against patients and attorneys involved in these malpractice suits.

(Referred to the Reference Committee on Constitution and Bylaws.)

Resolution # 10—A Change in the Constitution

(Introduced by Max S. Franklin, M.D.,
St. Louis Medical Society)

WHEREAS, The work of the House of Delegates is constantly increasing in scope and size, and

WHEREAS, The time to consider all this increased work properly and thoroughly is in one limited annual meeting per year, and

WHEREAS, Medical legislation, both State and Federal, is increasing in size and numbers to such an extent that due consideration by the House of Delegates is extremely difficult to cover in one annual session, therefore, be it

Resolved, That Article VI, Section I of the Constitution of MSMA be changed to read: "The Association shall hold bi-annual Sessions, Spring and Fall, at places fixed by the House of Delegates, the time of which shall be fixed by the Council, and be it further

Resolved, That a special session of the House of Delegates be called for November 1976.

(Referred to the Reference Committee on Reports of Officers.)

Resolution # 11—Medical Liability Clearinghouse

(Introduced by Hubert A. Ritter, M.D.,
St. Louis Medical Society)

WHEREAS, No business or profession can operate without knowing what its assets or liabilities are, and

WHEREAS, Members of the Missouri State Medical Association are confronted by a liability of unknown proportion, the litigious patient and the personal injury attorney, therefore, be it

Resolved, That the Missouri State Medical Association immediately upon passage of this resolution solicits from its entire membership the names and addresses of every patient and his or her family and every personal injury attorney who has ever brought or threatened suit against a member of the medical profession, and be it further

Resolved, That this information be kept current and available to every member in good standing of the Missouri State Medical Association.

(Referred to the Reference Committee on Constitution and Bylaws.)

Resolution # 12—FMGs Represented on State Board of Registration for the Healing Arts

(Introduced by Napoleon S. Maminta, M.D.,
St. Louis Medical Society)

WHEREAS, 20% of the medical practitioners in the United States are foreign medical graduates, and

WHEREAS, There is approximately the same proportion in the State of Missouri, and

WHEREAS, New Jersey was the first state to recognize the need for adequate representation on the State Board of that state, therefore, be it

Resolved, That the Missouri State Medical Association supports a recommendation to the Governor that a foreign medical graduate be considered for appointment to the Missouri State Board of Healing Arts.

(Referred to the Reference Committee on Medical Education and Public Welfare.)

Resolution # 13—St. Louis Regional Council on Maternal and Child Health

(Introduced by Francis X. Lieb, M.D.,
St. Louis Medical Society)

WHEREAS, Sudden Infant Death Syndrome (SIDS) is the leading

cause of death between one month and one year, and

WHEREAS, The tragedy of SIDS coupled with a lack of factual information about SIDS and a plethora of misinformation about SIDS leads to extraordinary guilt feelings as well as grief over the child's death, therefore, be it

Resolved, That SIDS be made a reportable disease so that parents suffering the tragedy of SIDS will be identified and will receive correct information about SIDS and supportive counseling and services as needed.

(Referred to the Reference Committee on Resolutions.)

Resolution # 14—Health Insurance Coverage for Psychiatric Illnesses

(Introduced by Robert D. Brookes, M.D. and
Ralph L. Biddy, M.D., St. Louis Medical Society)

WHEREAS, Many citizens of Missouri have health insurance policies which either omit or provide inadequate coverage for mental or emotional illness, and

WHEREAS, Insurance carriers have established the economic feasibility of providing basic coverage for mental and emotional illness, and

WHEREAS, No logical basis exists for excluding illnesses in these categories from benefits offered for other medical conditions, therefore, be it

Resolved, The Missouri State Medical Association urges the State Legislature to require minimum inpatient and outpatient mental and emotional illness benefits in any health insurance policy issued in the State of Missouri.

(Referred to the Reference Committee on Miscellaneous Affairs.)

Resolution # 15—For Retaining the Requirement That the Director of the Missouri State Department of Mental Health and the Superintendent of the State Hospitals Be Physicians Competent in the Field of Psychiatry

(Introduced by Edward H. Kowert, M.D.,
St. Louis Medical Society)

WHEREAS, The diagnosis of mental illness requires medical as well as psychological expertise, and

WHEREAS, The treatment of psychiatric illnesses includes medical treatment as well as psychological (as illustrated by recent dramatic advances in psychopharmacology), and

WHEREAS, Good administration of the State Department of Mental Health and its various hospitals requires an expert knowledge of these medical diagnostic and treatment procedures, therefore, be it

Resolved, That the Missouri State Medical Association strongly recommends to the State Legislature and the State Mental Health Commission that they retain the requirement that the Director of the State Department of Mental Health and the superintendents of its hospitals be physicians with an M.D. or D.O. degree who are competent in the field of psychiatry.

(Referred to the Reference Committee on Miscellaneous Affairs.)

Resolution # 16—Salute to Senator William Cason

(Introduced by Hubert A. Ritter, M.D.,
St. Louis Medical Society)

WHEREAS, Senator William Cason in his wisdom as President pro tem of the Missouri Senate saw fit to appoint a committee to investigate and recommend remedial legislation for the medical liability insurance crisis, and

WHEREAS, This committee has functioned in a most admirable manner seeking input from all physicians and their patients throughout this great State of Missouri, and

WHEREAS, Senator Cason has, in the past, shown outstanding leadership in promoting health-related legislation for the benefit of all Missourians, therefore, be it

Resolved, That the Missouri State Medical Association spreads upon its records its admiration for this man and his outstanding service to the citizens of Missouri, and be it further

Resolved, That a copy of this resolution be appropriately framed and signed by the officers of MSMA and presented to him as a token of the constant esteem for his efforts.

(Referred to the Reference Committee on Miscellaneous Affairs.)

Resolution # 17—Salute to Senator Albert Spradling

(Introduced by Hubert A. Ritter, M.D.,
St. Louis Medical Society)

WHEREAS, Senator Albert Spradling for 24 years has served the citizens of the State of Missouri in a loyal and forthright manner, and

WHEREAS, Senator Spradling has constantly had the welfare of all Missourians in mind wherever he served, and

WHEREAS, Most recently he has shown unusual leadership as chair-

man of the Senate Select Committee on Medical Malpractice, thereby benefiting not only the medical profession but all Missouri citizens, and

WHEREAS, His decision not to seek reelection grieves all honorable persons throughout this great State of Missouri, therefore, be it

Resolved, That Senator Albert Spradling be saluted by the Missouri State Medical Association for his efforts to improve the health care of all Missouri citizens, and be it further

Resolved, That the Missouri State Medical Association shows its appreciation, not only by having this resolution spread on the minutes of this convention, but by presenting a copy of the resolution appropriately framed and signed by the officers of MSMA to Senator Spradling as a token of thanks for his service to all Missourians.

(Referred to the Reference Committee on Miscellaneous Affairs.)

Resolution # 18—Negotiations with Third Parties

(Introduced by James C. Sisk, M.D.,
St. Louis County Medical Society)

WHEREAS, The House of Delegates of the Missouri State Medical Association, by past action, has gone on record in favor of exploring expanded methods of negotiating fees and practice conditions with third parties for its members, should this become necessary in the future, and

WHEREAS, In some sections of the country, independent organizations outside the framework of organized medicine have proceeded to develop methods for such negotiations of doctors fees and practice conditions, and

WHEREAS, The American Medical Association within the last year, in recognition of the necessity, has established a negotiating section to assist state and local medical societies in developing negotiating policies, now therefore, be it

Resolved, That the Council of the Missouri State Medical Association shall increase its effort to explore the possibility of developing such negotiating capacity either within the state organization or through an affiliated organization.

(Referred to the Reference Committee on Resolutions.)

Resolution # 19—Public Law 93-641

(Introduced by Butler-Ripley-Wayne-Carter
County Medical Society)

WHEREAS, PL 93-641 has been enacted over the objection of a large segment of providers and consumers of Health Care and

WHEREAS, The intent of the law is to deliver health planning and resource development to regional consumers and providers of health care is disrupted by the total control and autonomy of HEW and

WHEREAS, The cost containment provision of the law is defeated by excessive expenditures for duplicative efforts at planning, payment of salaries for professional planners and expenses generated in complying by bureaucratic regulations and

WHEREAS, The physicians of Missouri believe the law to be ill conceived and not in the best interest of the providers and consumers of the State of Missouri and America, therefore, be it

Resolved, That the MSMA goes on record as being opposed to Public Law 93-641 and be it further

Resolved, That MSMA supports the efforts of the AMA in seeking repeal of this legislation, and be it finally

Resolved, That the MSMA makes known objections and requests for repeal of Public Law 93-641 to our U. S. Senators and Representatives.

(Referred to the Reference Committee on Resolutions.)

Resolution # 20—Medical Malpractice Crisis in Missouri

(Introduced by Greene County Medical Society)

WHEREAS, The "malpractice crisis" as it exists today in Missouri and generally throughout the United States is serious and increasing with alarming rapidity, and

WHEREAS, A wide spectrum of "health care providers" are particularly involved, e.g., various medical and dental specialists, hospitals, pharmaceutical and implant manufacturers, and

WHEREAS, Various actions such as strikes, slow downs or selective withdrawal of high risk services are harmful to providers and patients alike, and

WHEREAS, Various legislative proposals being enacted now and in the near future must be tested constitutionally and, at best, represent only some improvement in a very bleak picture, therefore, be it

Resolved, That the Missouri State Medical Association investigates and campaigns actively for legislation to remove the "unforeseen health care accident" from the civil liability tort system in Missouri, utilizing constitutionally tested legislation, such as workmen's compensation, as a model.

(Referred to the Reference Committee on Constitution and Bylaws.)

Resolution # 21—Physician's Assistant

(Introduced by Greene County Medical Society)

WHEREAS, Ophthalmologists have been prevented from providing most efficient care of the people of Missouri by a Supreme Court deci-

sion against the use of assistants under the present laws of Missouri, and

WHEREAS, A bill providing for physicians assistants has been introduced into the 78th General Assembly in accord with the recommendations of the Supreme Court decision, and

WHEREAS, Section 11 of this House Bill 1054 would allow the assistant of a physician or surgeon acting under his prescription, supervision or direction to perform the acts needed to help physicians best serve their patients unrestricted by any amendments that might be added to this act, be it

Resolved, That the House of Delegates of the Missouri State Medical Association goes on record as urging passage of this House Bill 1054 provided that "direct" be inserted in line 7 page 5 to limit this permissive action in accord with the preceding Section 10, Item 2.

(Referred to the Reference Committee on Miscellaneous Affairs.)

Resolution # 22—PSRO

(Introduced by Greene County Medical Society)

WHEREAS, Some positive changes were made by amendments to PSRO,

WHEREAS, This route may be hazardous in view of the committee make up, be it

Resolved, That the AMA continues its efforts to amend the PSRO law to make it less threatening to good medical care and, therefore, be it further

Resolved, That the AMA be vigilant in its efforts to resist the extension of this law.

(Referred to the Reference Committee on Resolutions.)

Resolution # 23—Defense of Rights

(Introduced by Greene County Medical Society)

WHEREAS, Certain individual members or groups of members or component members may refuse to participate in certain types of utilization review, be it

Resolved, That the MSMA supports the following resolutions adopted by the House of Delegates of the AMA at its Clinical Convention 1975:

"That the AMA supports the right of individual physicians voluntarily to elect not to participate in governmental review programs which they believe conflict with the principles of good medical practice when they have no contractual or ethical obligation to such programs; and be it further Resolved, That the AMA shall continue to take appropriate action to maintain this right."

(Referred to Reference Committee on Resolutions.)

Resolution # 24—Physician Reimbursement for Utilization Review

(Introduced by Greene County Medical Society)

WHEREAS, The AMA House of Delegates at its 1975 Clinical Convention considered the problem of Utilization Review and its various time consuming aspects and acted upon this problem, therefore, be it

Resolved, That the MSMA endorses the position stated as follows:

"Resolved, That in those hospitals which conduct utilization review of any inpatient care, compensation of physicians for such review is a legitimate expense; and be it further

Resolved, That the cost of such review be included in hospital rates and reimbursable costs regardless of the source of payment; and be it further

Resolved, That the AMA, through the Council on Medical Service, initiates a dialogue with Blue Cross and Blue Shield and other insurance carriers through the Health Insurance Association of America so that Blue Cross and Blue Shield and other insurance carriers will pay their fair proportion of utilization review costs."

(Referred to the Reference Committee on Resolutions.)

Resolution # 25—Unilateral Action by CHAMPUS

(Introduced by Greene County Medical Society)

WHEREAS, CHAMPUS has unilaterally made rules and regulations concerning fees for services, and

WHEREAS, This action will result in fewer services available to a deserving segment of our military family which, though producing a monetary saving, will reduce the health status of these people, therefore, be it

Resolved, That all physicians, county medical societies, the state medical association and the AMA resist this action vigorously.

(Referred to the Reference Committee on Resolutions.)

Resolution # 26—Medicare Reimbursement

(Introduced by Greene County Medical Society)

WHEREAS, Medicare rulings have effectually fixed the fees which physicians may charge by the use of an economic index and other devices, and

WHEREAS, The cost of providing the services which are required by the people covered by this program continue to rise, therefore, be it
Resolved, That the Missouri State Medical Association takes all appropriate action to seek a return of Medicare reimbursement to physicians usual, customary or reasonable charges in line with the programs original legislative contract to its beneficiaries, and be it further
Resolved, That the AMA continues to expend its efforts in this direction.

(Referred to the Reference Committee on Resolutions.)

Resolution # 27—Medicaid Reimbursement

(Introduced by Greene County Medical Society)

WHEREAS, The Medicaid Program has directed its components to pay at least 80% of the Medicare payments as the lowest level of payment, and

WHEREAS, This effectively creates at least two and probably three classes of medical payments for our citizens and

WHEREAS, This will effectively reduce the numbers of services available to a very needy segment of our population effectively removing them from "the mainstream of medical care," therefore, be it

Resolved, That the problem of Medicaid reimbursement be given attention by the MSMA and that a realistic basis of remuneration be established through negotiation with the welfare department, the legislature and the governor.

(Referred to the Reference Committee on Resolutions.)

Resolution # 28—Welfare Marketing of Medicine

(Introduced by Greene County Medical Society)

WHEREAS, The Welfare Department of the state of California has entered into provision of medicine to the patient

WHEREAS, They propose to use generic drugs of their choice, therefore, be it

Resolved, That the MSMA and all of its members individually oppose any such scheme in Missouri as detrimental to the proper provision of medical services.

(Referred to the Reference Committee on Resolutions.)

Resolution # 29—National Health Planning and Resource Act (PL 93-641)

(Introduced by Greene County Medical Society)

WHEREAS, The National Health Planning and Resource Act (PL 93-641) is one of the most dangerous and restrictive acts ever imposed on the health care system of the U. S. and

WHEREAS, Enforcing the provisions of this law will inevitably result in reduced medical services to the people, therefore, be it

Resolved, That the MSMA condemns the law for what it is and works for its outright repeal.

(Referred to the Reference Committee on Resolutions.)

Resolution # 30—National Health Insurance

(Introduced by Greene County Medical Society)

WHEREAS, National Health Insurance continues to be increased with each session of Congress, and

WHEREAS, This session seems to be on the same path, therefore, be it

Resolved, That the MSMA redoubles its efforts to oppose such action by public education and urging of its members to communicate their feelings to each of the Senators and members of Congress.

(Referred to the Reference Committee on Resolutions.)

Resolution # 31—Health Manpower Legislation

(Introduced by Greene County Medical Society)

WHEREAS, The present health manpower legislation will result in fewer medical services due to restrictive requirements and

WHEREAS, Some of the requirements actually would result in in-dented services, therefore, be it

Resolved, That the MSMA resists the restrictive measures in the present health manpower legislation by all methods available and feasible.

(Referred to the Reference Committee on Medical Education and Public Welfare.)

Resolution # 32—U. S. Department of Health

(Introduced by Greene County Medical Society)

WHEREAS, The Health involvement of the federal government has reached unmanageable proportions in its present status of a portion of the Department of HEW, therefore, be it

Resolved, That a separate Department of Health be created with Cabinet status and be headed by a physician.

(Referred to the Reference Committee on Miscellaneous Affairs.)

Resolution # 33—AMA Collective Bargaining

(Introduced by Greene County Medical Society)

WHEREAS, The AMA has developed a Department of Negotiations and

WHEREAS, Such a department is not designed to collectively bargain or negotiate, therefore, be it

Resolved, That the AMA be encouraged to actually take a stance which would allow collective bargaining or true negotiations on behalf of its members.

(Referred to the Reference Committee on Resolutions.)

Resolution # 34—Joint Commission on Accreditation of Hospitals

(Introduced by Greene County Medical Society)

WHEREAS, It is desirable in the interests of economy of both time and money that one accreditation organization with one set of criteria allowing only one inspection be developed, therefore, be it

Resolved, That the MSMA supports the following resolution adopted by the AMA House of Delegates in its 1975 Clinical Convention:

"*Resolved*, That the American Medical Association declares its convictions that the Joint Commission on Accreditation of Hospitals is the most experienced and responsive agency to patient's needs in assuring quality of care; and be it further

Resolved, That the American Medical Association continues to support the Joint Commission on Accreditation of Hospitals and instructs the AMA Commissioners to the JCAH to encourage the JCAH to take the lead in developing a unified accreditation policy with one set of standards and inspections to be administered by the Joint Commission on Accreditation of Hospitals and, on a state basis in a manner consistent with AMA policy, to create a coordinated program of hospital surveys to avoid duplication and reduce the frequency of hospital inspections."

(Referred to the Reference Committee on Medical Education and Public Welfare.)

Resolution # 35—Quackery—Health Frauds

(Introduced by Greene County Medical Society)

WHEREAS, One of the most malevolent practices injuring the public at the present time are fraudulent claims for curing of ills,

WHEREAS, Protection of the public from these practices is a responsibility of physicians and their organizations, therefore, be it

Resolved, That the MSMA endorses the following resolution adopted by the AMA House of Delegates at its 1975 Clinical Convention:

"*Resolved*, That the House of Delegates requests the Board of Trustees to give high priority to the establishment of a Committee on Health Fraud in order that the AMA may forcefully act to protect the public from health quackery in all its forms. (Fiscal note: \$25,000.)"

(Referred to the Reference Committee on Medical Education and Public Welfare.)

Resolution # 36—Advertising

(Introduced by Greene County Medical Society)

WHEREAS, Members of the learned professions have been prohibited from advertising both by the law and canons of ethics because such activity is recognized to be detrimental to the welfare of the public, therefore, be it

Resolved, That the MSMA resists the efforts of the federal government to enter into those areas and so further cause deterioration of the generally high level of medical care available to those who desire it.

(Referred to the Reference Committee on Miscellaneous Affairs.)

Resolution # 37—Support of the Board of the Healing Arts

(Introduced by Greene County Medical Society)

WHEREAS, The legislature and the administration of the state of Missouri have by statute and rules removed much of the ability of the Board of the Healing Arts to guarantee a high level of medical care to the citizens of the state, therefore, be it

Resolved, That the MSMA uses all its powers deemed feasible to have this power restored to the Board of Healing Arts.

(Referred to the Reference Committee on Constitution and Bylaws.)

Resolution # 38—Repeal of Law Requiring Testing for Efficacy by FDA

(Introduced by Charles A. Jost, M.D.,
St. Louis Medical Society)

WHEREAS, For many years the American Pharmaceutical Industry

led the world in the production and marketing of new medications, and

WHEREAS, The 1969 Amendment to the Food and Drug Act requires the Food and Drug Administration to pass on the safety and efficacy of medications, and

WHEREAS, Other countries test only for safety, and

WHEREAS, The number of new drugs brought to market has been cut in half and the cost, borne by the patient, has been doubled, and

WHEREAS, This has been detrimental to the health of our patients, therefore, be it

Resolved, That this House of Delegates requests the Congress to repeal that portion of the law which requires testing for efficacy by the Food and Drug Administration.

(Referred to the Reference Committee on Miscellaneous Affairs.)

Resolution # 39—Change of MSMA Meeting Date

(Introduced by George L. Hawkins, Jr., M.D.,
St. Louis Medical Society)

WHEREAS, The necessity becomes ever more apparent, that the Missouri State Medical Association must act as the advocate of the physicians of Missouri, relative to legislative acts and administrative procedures of the State of Missouri and of the Federal Government and its agencies, and

WHEREAS, With the present meeting time of the MSMA, the physicians are a year behind on legislative matters, since the legislature has already met in session and has usually completed its legislation when the MSMA meets in March or April, therefore, be it

Resolved, That the time of meeting of the Missouri State Medical Association be changed to the month of November, so that legislative proposals can be formulated prior to the meeting of the State Legislature.

(Referred to the Reference Committee on Reports of Officers.)

Resolution # 40—Uniform Hospital Discharge Data Abstract

(Introduced by George L. Hawkins, Jr., M.D.,
St. Louis Medical Society)

WHEREAS, The Missouri Division of Health, in a letter over the signature of Mr. Garland Land, objected to a proposal by the Department of Health, Education and Welfare which would require the use of patient's and physician's names and Social Security numbers on a Uniform Hospital Discharge Abstract, and

WHEREAS, The Division also pointed out the unnecessary duplication of the data processing proposal by HEW, and

WHEREAS, The Division criticized HEW's proposed standard inflexible format for diagnosis reporting and recommended a flexible format which would allow for local initiative and innovation, therefore, be it

Resolved, That the Missouri State Medical Association commends the Missouri Division of Health for its forthright stand against these unreasonable proposed regulations regarding the Uniform Hospital Discharge Abstract as proposed by the U. S. Department of Health, Education and Welfare.

(Referred to the Reference Committee on Resolutions.)

Resolution # 41—Action Plan Relating to Professional Quality

(Introduced by Donald A. Fakoury, M.D.,
Clay County Medical Association)

WHEREAS, The need exists for a statement of position for helpful legislation in the State of Missouri to assist in alleviating the professional liability problem, the following Action Plan, which has been approved by the Clay County Medical Association, is recommended for adoption by the Missouri State Medical Association:

- I. Court costs and attorneys' fees to be paid by the losing party to the litigation.
- II. Limit the size and method of payment of awards (\$100,000 any one source) (\$500,000 all possible sources). Avoid lump sum payments. Favor periodic payments over time, establishing fund to end windfall payments and handle future expenses of claimants.
- III. In the best interest of the legitimate plaintiff, as well as the innocent physician, we are opposed to the contingency fee system and recommend a more reasonable fee for services rendered for attorneys.
- IV. Change statute of limitations to provide uniform rule of two (2) years from date of occurrence after age six (6) years.
- V. Prevent payment from more than one source for same liability (dual payment). End collateral source rule (allow evidence of other sources of compensation to be admitted to evidence in court).
- VI. Establish a medical review panel for voluntary arbitration, comprised of three (3) physicians and one (1) attorney. Attorney to preside at hearing. One physician to be picked by plaintiff, one by defendant and the third by the two (2) physicians already appointed. All physicians members of same specialty as defend-

ant. Attorney to be provided from a panel proposed by local Bar Association, and picked by the three (3) physicians.

If either party to the litigation chooses to disregard the findings of the panel and take the case to court, the court costs and attorneys' fees will be paid by the losing party to the litigation.

- VII. Limit or restrict guarantees of result to those expressed in writing. Eliminate or restrict the use of lack of informed consent as a cause for action by requiring proof that a reasonably prudent person in the patient's position would not have undergone the treatment if he had been fully informed, and that the lack of informed consent is the proximate cause of injury.
- VIII. Urge state medical association to proceed with the establishment of a mutual insurance company to provide malpractice insurance coverage for the doctors in the state at a reasonable cost. (Preceding legislation makes success of such a company realizable.)
- IX. We recommend the elimination of the inclusion of Dollar Amounts in the Demand in Medical Malpractice Actions.

(Referred to the Reference Committee on Constitution and Bylaws.)

Resolution # 42—Malpractice

(Introduced by Edwin J. Cunningham, M.D.,
St. Louis County Medical Society)

WHEREAS, The MSMA strongly supports the concept that physicians who negligently injure patients should be responsible for compensation of those injured patients for that injury, and

WHEREAS, The current court jury (TORT) system for compensating injured patients is too costly, time consuming, inefficient and inequitable and, thereby, resulting in a disservice to patients, physicians and the general public, and

WHEREAS, The skyrocketing cost of insurance premiums will soon result in a crisis of malpractice insurance availability that will dramatically increase the cost of medical care for the consumer and decrease its availability, assessability and quality, and

WHEREAS, No crisis situation exists in the State of Missouri at this time, in order to avoid such a crisis, now, therefore, be it

Resolved, That the MSMA supports legislative change to increase the scope and authority of the Missouri State Board of Registration for the Healing Arts to identify, educate and/or discipline the incompetent and negligent health care provider as well as reforms in the compensating process as follows:

1. Compulsory arbitration of malpractice claims.
2. Limitation on size of awards.
3. Certain reductions in the statute of limitations.
4. Reasonable limitations on attorney's fees.
5. Creation of insurance compensation pools from a broader base.
6. Formation of physicians mutual type insurance companies to guarantee protection at the least cost.

(Referred to the Reference Committee on Constitution and Bylaws.)

The Speaker then reminded the Delegates that, according to the Constitution and Bylaws, introduction of new resolutions not included in the Delegates' Handbook would be in order at the Second Session of the House provided that 200 copies of the resolution or funding for same are made available and presented to the Delegates 24 hours before the meeting, that ten copies be submitted to the Secretary and that introduction of each resolution is approved by a two-thirds vote of the House of Delegates.

At this time, Dr. Edwin K. Burford, Jr., Vice-Speaker, assumed the gavel. There being no further business, he adjourned the First Session of the House of Delegates.

SECOND SESSION

Friday, April 2, 1976

The Second Session of the House of Delegates was called to order at 4 PM by Dr. James T. Brown, Speaker, who presided.

Dr. Cross, Chairman of the Credentials Committee, reported that a quorum was present.

The Speaker instructed the Delegates to consider the reference committee reports as the resolutions upon which they would vote.

The Speaker invited Dr. James Sisk, Chairman of the Reference Committee on Constitution and Bylaws, to present his report.

CONSTITUTION AND BYLAWS

The meeting of the Reference Committee on Constitution and Bylaws was held in the Mission Room of the Crown Center Hotel at 3 PM on April 1, 1976. All members of the Council were present.

The Council minutes of April 20, 1975 addressing the subject of the appointment of a vice-councilor for each Council District was considered along with Resolution # 1.

Resolution # 1—MSMA District Vice-Councilor

The *Resolved* of Resolution # 1 was amended by the sponsor to read as follows:

Resolved, That Article VII—Officers, Section 2 of the Constitution of the Missouri State Medical Association be amended to read as follows:

All officers except Councilors and Vice-Councilors shall be elected annually. The terms of Councilors and Vice-Councilors shall be two years. Half of the membership of the Council shall be elected each year. The Secretary and the Treasurer shall be elected by the Council. The Delegates present from each Council District shall meet prior to the last day of the Annual Session and elect the Councilor and Vice-Councilor from that District. In the event of death, resignation or removal of any Councilor, the Vice-Councilor shall automatically fill the vacancy. All of the Officers shall serve until their successors are elected and installed.

Mr. Speaker, your reference committee recommends that the Council minutes of April 20, 1975 and the amended Resolution # 1 be adopted.

(The Speaker noted that since Resolution # 1 as amended would require a change in Article VII—Officers, Section 2 of the MSMA Constitution, it would lay on the table until the 1977 Annual Session (for one year), at which time it will be removed from the table and be voted on by the House of Delegates. Its approval will require a two-thirds vote of the delegates present and attending.)

Resolution Regarding Reimbursement for Councilors

The Reference Committee next considered the resolution concerning reimbursement for Councilor expenses for attendance at the MSMA Annual Session from the Council Minutes of Dec. 13, 1975. The *Resolved* to read as follows:

Resolved, That Page 7, Chapter VI, Section 2 of the MSMA Bylaws be revised as follows:

In the sentence referring to compensation of Councilor expenses, which at present reads as follows:

But, this shall not include his expense in attending the Annual Session of the Association,

Substitute "including" for the words "but this shall not include" so that the sentence will read as follows:

The necessary traveling expenses incurred by each Councilor in the line of duties herein imposed may be allowed on a proper itemized statement submitted monthly and within the current year, including his expense in attending the Annual Session of the Association.

The Reference Committee recommends that because no fiscal note concerning the effect of this Resolution upon the MSMA budget was attached to the Resolution, this portion of the Dec. 13, 1975 Council Minutes not be adopted.

Mr. Speaker, I move the adoption of the Committee's recommendation.

(After a discussion, the vote to adopt the Committee's recommendation failed and the Resolution regarding reimbursement for the Councilors was approved.)

Council Minutes

The remaining portions of the Council minutes assigned to the Constitution and Bylaws Committee were reviewed by the Committee. They include the meetings of April 20,

1975 through March 31, 1976. These minutes include the Council's recommended change in the purpose of the Ad Hoc Committee to Study the Formation of a Mutual Assessment Professional Liability Association. This committee is now charged with studying the Medical Defense Associates Ltd. Insurance Company in detail and reporting back to the Council on their findings and shall have legal advice in their deliberations if they so desire.

The Reference Committee recommends that these minutes be approved.

Mr. Speaker, I move the adoption of this portion of the report.

(The motion to adopt was approved.)

Resolution # 37—Support of the Board of the Healing Arts

The Reference Committee next considered Resolution # 37—"Support of the Board of Healing Arts."

The Committee recommends that the *Resolved* be amended as follows:

Resolved, That the MSMA uses all its powers deemed feasible to have this power restored to the Board of Healing Arts following the principle stated in Senate Bill 472.

Mr. Speaker, the Committee recommends that Resolution # 37 be adopted as amended.

(The Speaker called for a vote on Resolution # 37. Resolution # 37 was approved.)

Report of Commission on Medical-Legal Affairs

The report of the Commission on Medical-Legal Affairs was reviewed by the Reference Committee and the Committee recommends adoption of this report.

Mr. Speaker, I move the adoption of this portion of the report.

(The motion to adopt was approved.)

Mr. Speaker, in view of the action taken in the Council meeting of March 31, 1976 in regard to the Ad Hoc Committee to Study the Formation of a Mutual Assessment Professional Liability Association and presented earlier in the report, the Committee recommends that the report of the Ad Hoc Committee to Study the Formation of a Mutual Assessment Company be accepted for information only.

Mr. Speaker, I move the adoption of this portion of the report.

(This portion of the report was approved.)

Resolution # 4—Informed Consent

The Reference Committee heard much testimony on this subject and recommends that Resolution # 4 be referred to the Committee on Legislative Affairs for further consideration.

Mr. Speaker, I move the adoption of this portion of the report.

(The motion to adopt was approved.)

Resolution # 9—Malpractice Suits

The Reference Committee next considered Resolution # 9 as amended by the sponsor. The sponsor's *amended Resolved* would read as follows:

Resolved, That any Missouri physician found not to be negligent in a medical malpractice case shall have the assistance of the Missouri State Medical Association in determining if there exists a reasonable basis to commence an action for malicious prosecution arising out of such case,

The Reference Committee recommends that the word "patient" in the second line of the third WHEREAS be amend-

ed to read "Plaintiff." The Committee further recommends that this resolution as amended be referred to the Council for clarification of the nature of assistance which might be provided and its legal implications to the Missouri State Medical Association.

Mr. Speaker, I move the adoption of this portion of the report.

(The motion to adopt was approved.)

Resolution # 11—Medical Liability Clearinghouse

The Reference Committee next considered Resolution # 11. The Committee recommends that Resolution # 11 be adopted as amended, which is as follows:

WHEREAS, No business or profession can operate without knowing what its assets or liabilities are, and

WHEREAS, Members of the Missouri State Medical Association are confronted by a liability of unknown proportion and no data is available as to the number of malpractice suits filed and their disposition, therefore, be it

Resolved, That the Missouri State Medical Association requests its membership to submit such information to the Association, and be it further

Resolved, That this information be kept current and available to every member in good standing of the Missouri State Medical Association.

Mr. Speaker, I move the adoption of this portion of the report.

(The motion to adopt was approved. Resolution # 11 was adopted as amended.)

Resolution # 20—Medical Malpractice Crisis in Missouri

The Reference Committee considered Resolution # 20 and recommends that the title be changed to read "Medical Liability Crisis" and that Resolution # 20 be amended to read as follows:

Resolution # 20—Medical Liability Crisis in Missouri

WHEREAS, The "Medical Liability Crisis" as it exists today in Missouri and generally throughout the United States is serious and increasing with alarming rapidity, and

WHEREAS, Various legislative proposals being enacted now and in the near future must be tested constitutionally and at best represent only some improvement in a very bleak picture, therefore, be it

Resolved, That the Missouri State Medical Association investigates and, if possible, campaigns actively for legislation to remove the unforeseen health care accident from the civil liability tort system in Missouri.

The Committee recommends that Resolution # 20 be adopted as amended.

Mr. Speaker, I move the adoption of this portion of the report.

(The motion to adopt was approved. Resolution # 20 was adopted as amended.)

Resolution # 41—Action Plan Relating to Professional Liability

Resolution # 42—Malpractice

The Reference Committee next considered Resolution # 41 and Resolution # 42.

It is the opinion of the Committee that since many of the proposals contained in these resolutions are being currently debated by the Missouri General Assembly and most of the proposals are being studied and supported by the Association through this legislative committee, Resolution # 41 and Resolution # 42 are redundant and we recommend that they not be adopted.

Mr. Speaker, I move the adoption of this portion of the report.

(The motion to adopt was approved. Resolution # 41 and Resolution # 42 were not adopted.)

The Reference Committee further recommends that the MSMA Council, the MSMA Committee on Legislative Affairs and the Missouri General Assembly be commended for their thoughtful approach in attempting to solve the medical liability problems in the state of Missouri.

Mr. Chairman, I move the adoption of this portion of the report.

(The motion to adopt was approved.)

The Speaker invited Dr. Charles Sherwin, Chairman, to present the report of the Reference Committee on Resolutions.

RESOLUTIONS

The meeting of the Reference Committee on Resolutions was held at 4 PM in the Shawnee Room of the Crown Center Hotel on April 1, 1976. All members of the Committee were present.

The Reference Committee gave careful consideration to the several items referred to it and submits the following report:

Council Minutes

The Council minutes assigned to the Resolutions Committee were reviewed by the Committee. They included the meetings of April 20, 1975; May 31, 1975; Sept. 13, 1975; Dec. 13, 1975; and Jan. 31, 1976.

The Committee approves and recommends the adoption of these Council Minutes.

Mr. Speaker, I move the adoption of this portion of the report.

(The motion to adopt was approved.)

Commission on Medical Economics

The report of the Commission on Medical Economics was reviewed and the Committee recommends its adoption.

Mr. Speaker, I move the adoption of this portion of the report.

(The motion to adopt was approved.)

Resolution # 3—Doctor-Patient Confidentiality

The Committee next considered the resolutions submitted, beginning with Resolution # 3.

Mr. Speaker, the Committee recommends that Resolution # 3 be adopted and I so move.

(The motion to adopt was approved.)

Resolution # 13—St. Louis Regional Council on Maternal and Child Health

The Committee recommends that Resolution # 13 be adopted as amended with Line 10 reading as follows:

Parents suffering the tragedy of SIDS can be identified and could receive correct information.

The amended *Resolve* would read as follows:

Resolved, That SIDS be made a reportable disease so that parents suffering the tragedy of SIDS can be identified and could receive correct information.

Mr. Speaker, I move the adoption of this portion of the report.

(The motion to adopt was approved.)

Resolution # 18—Negotiations With Third Parties

The Committee considered Resolution # 18 and recommends that it be adopted.

I move the adoption of this portion of the report.

(The motion to adopt was approved.)

**Resolution # 19—Public Law 93-641
and**

**Resolution # 29—National Health Plan and
Resources Act (PL 93-641)**

The Reference Committee recommends that Resolution # 19 be combined with Resolution # 29 and that they be amended as follows:

WHEREAS, Public Law 93-641 has been enacted over the objection of a large segment of providers and consumers of health care and,

WHEREAS, A provider of health care, planning to expend funds beyond a legally established amount for a health care facility or piece of equipment, must first seek and obtain approval from successive bodies at local, state and federal levels; these bodies largely are made up of consumers, rather than health care providers and,

WHEREAS, The physicians of Missouri believe the law to be ill-conceived and not in the best interest of the providers and consumers of the State of Missouri and America, therefore, be it

Resolved, That the MSMA goes on record as condemning Public Law 93-641 and, be it further

Resolved, That the MSMA supports the efforts of the AMA in seeking repeal of this legislation, and be it finally

Resolved, That the MSMA makes known objections to and request for repeal of Public Law 93-641 to our U. S. Senators and Representatives.

The Committee recommends that Resolution # 19 as amended be adopted.

Mr. Speaker, I move the adoption of this portion of the report.

(The motion to adopt was approved.)

Resolution # 22—PSRO

The Committee felt that Resolution # 22 does not offer sufficient explanation of the changes made or their hazardous effect and, therefore, the Committee does not recommend action on this resolution at this time.

Mr. Speaker, I move the adoption of this portion of the report.

(The Speaker invited discussion. Dr. Stanley Peterson arose to offer information about the PSRO and modifications. He explained that the intent of Resolution # 22 is to encourage the AMA to continue its efforts to amend the PSRO law.)

The motion to adopt this portion of the report was not approved and the Committee's recommendation was defeated. Therefore Resolution # 22 was adopted.)

Resolution # 23—Defense of Rights

**Resolution # 24—Physician Reimbursement for
Utilization Review**

The Reference Committee recommends the adoption of Resolution # 23 and Resolution # 24 as written.

Mr. Speaker, I move the adoption of this portion of the report.

(Resolution # 23 and Resolution # 24 were considered separately and the motion to adopt was approved.)

Resolution # 25—Unilateral Action by CHAMPUS

The Reference Committee recommends that Resolution # 25 be amended for clarification by inserting two commas—one after the word "which" and the other after the word "saving." The amended Resolution # 25 would read as follows:

WHEREAS, CHAMPUS has unilaterally made rules and regulations concerning fees for service, and

WHEREAS, This action will result in fewer services available to a deserving segment of our military family which, though producing a monetary saving, will reduce the health status of these people, therefore be it

Resolved, That all physicians, county medical societies, the state medical association and the AMA resist this action vigorously.

Mr. Speaker, I move the adoption of this portion of the report.

(The move to adopt was approved.)

Resolution # 26—Medicare Reimbursement

The Reference Committee recommends the amendment of Resolution # 26 as follows:

Line 2—Insert the word "and" at the end of Line 2.

Line 7—Delete "takes" and insert "take."

Line 8—Insert an apostrophe in the word "physicians."

Line 9—Insert an apostrophe in the word "programs."

Line 12—The Committee felt that Line 12 should read "Resolved, that the AMA be urged to continue to expend its efforts in this direction."

Resolution # 26 as amended would read as follows:

WHEREAS, Medicare rulings have effectually fixed the fees which physicians may charge by the use of an economic index and other devices, and

WHEREAS, The cost of providing the services which are required by the people covered by this program continue to rise, therefore be it

Resolved, That the Missouri State Medical Association take all appropriate action to seek a return of Medicare reimbursement to physician's usual, customary, or reasonable charges in line with the program's original legislative contract to its beneficiaries, and be it further

Resolved, That the AMA be urged to continue to expend its efforts in this direction.

Mr. Speaker, I move the adoption of this portion of the report.

(The motion to adopt was approved.)

Resolution # 27—Medicaid Reimbursement

The Reference Committee recommends the amendment of Resolution # 27 as follows:

Line 4 should read as "Whereas, this effectively creates more than one class."

Line 8—Insert the word "by" after the word "population."

Line 12—Change the word "renumeration" to read "remuneration."

Resolution # 27 as amended will read as follows:

WHEREAS, The Medicaid Program has directed its components to pay at least 80% of the Medicare payments as the lowest level of payment, and

WHEREAS, This effectively creates more than one class of medical payments for our citizens and

WHEREAS, This will effectively reduce the numbers of services available to a very needy segment of our population by effectively removing them from "the mainstream of medical care," therefore, be it

Resolved, That the problem of Medicaid reimbursement be given attention by the MSMA and that a realistic basis of remuneration be established through negotiation with the welfare department, the legislature and the governor.

Mr. Speaker, I move the adoption of this portion of the report.

(The motion to adopt was approved.)

Resolution # 28—Welfare Marketing of Medicine

The Reference Committee recommends that Resolution # 28 be amended as follows:

Line 2—Change the word "provision" to "supplying."

It is the feeling of the Committee that the word "provider" or "provision" is frequently used in the context of the provision of medical care. In this case, it is the provision of medicines or medications, and we think that the word "supplying" would offer a better explanation.

Resolution # 28 as amended would read as follows:

WHEREAS, The Welfare Department of the state of California has entered into supplying of medicine to the patient

WHEREAS, They propose to use generic drugs of their choice, therefore, be it

Resolved, That the MSMA and all of its members individually oppose any such scheme in Missouri as detrimental to the proper provision of medical services.

Mr. Speaker, I move the adoption of this portion of the report.

(The motion to adopt was approved.)

Resolution # 30—National Health Insurance

The Reference Committee recommends that Resolution # 30 be amended as follows:

Line 1 should read as "WHEREAS, the threat of National Health Insurance continues to be increased with —"

Line 4 should read as "WHEREAS, this session of Congress seems to be on the same path, therefore, be it"

Line 8 should read as "Each of the Senators, members of Congress and the AMA.

As amended, Resolution # 30 would read as follows:

WHEREAS, The threat of National Health Insurance continues to be increased with each session of Congress, and

WHEREAS, This session of Congress seems to be on the same path, therefore be it

Resolved, That the MSMA redoubles its efforts to oppose such action by public education and urging of its members to communicate their feelings to each of the Senators, members of Congress and the AMA.

The Committee recommends that Resolution # 30 be adopted as amended.

Mr. Speaker, I move the adoption of this portion of the report.

(The motion to adopt failed.)

Resolution # 33—AMA Collective Bargaining

The Reference Committee recommends that Resolution # 33 be adopted.

Mr. Speaker, I move the adoption of this portion of the report.

(The motion to adopt was approved.)

Resolution # 40—Uniform Hospital Discharge Data Abstract

The Reference Committee recommends that Resolution # 40 be adopted.

Mr. Speaker, I move the adoption of this portion of the report.

(The motion to adopt was approved.)

The Speaker invited Dr. Fred Fowler, Chairman of the Reference Committee on Miscellaneous Affairs, to present his report.

MISCELLANEOUS AFFAIRS

The meeting of the Reference Committee on Miscellaneous Affairs was held at 3:30 PM in the Roanoke Room at the Crown Center Hotel on April 1, 1976. All members of the Committee were present. Earlier in the day, the House of Delegates appointed Dr. J. Marshall Jung, Cape Girardeau, as a member of the Committee due to Dr. Holcomb's absence.

The Reference Committee considered the items referred to it and submits the following report:

The Council Minutes assigned to the Miscellaneous Affairs Committee were reviewed. The item from the Council minutes of May 20, 1975 in regard to the Board of Healing

Arts raised the question of whether financial support to the Board would be expected from the Missouri State Medical Association in the event that a lawsuit would be filed by the Board over the issue of the control of Executive Secretary and investigators for the Board. This matter is referred back to the Executive Council for clarification.

With the exception of this item, I move that this portion of the report be adopted.

(The motion to adopt was approved.)

The Annual Report of the Commission on Public Affairs and the Report on Legislative Affairs were reviewed by the Committee.

Mr. Speaker, I move the approval of these informational reports.

(The motion to approve carried.)

Resolution # 2—Definition of Death

The Reference Committee considered Resolution # 2 which pertains to a legislative proposal allowing physicians to legally determine the time of a patient's death based on ordinary standards of medical practice.

The Reference Committee recommends that Resolution # 2 be adopted.

Mr. Speaker, I move the adoption of this portion of the report.

(The motion to adopt was approved.)

Resolution # 14—Health Insurance Coverage for Psychiatric Illnesses

Resolution # 14 urges mandatory minimum benefits for mental illness in any health insurance policy issued in the state of Missouri.

The Reference Committee recommends the adoption of this Resolution.

Mr. Speaker, I move the adoption of this portion of the report.

(The motion to adopt was approved.)

Resolution # 15—For Retaining the Requirement That the Director of the Missouri State Department of Mental Health and the Superintendent of the State Hospitals Be Physicians Competent in the Field of Psychiatry

The Reference Committee reviewed Resolution # 15 and recommends its adoption.

Mr. Speaker, I move the adoption of this portion of the report.

(The motion to adopt was approved.)

Resolution # 21—Physician's Assistant

Resolution # 21 pertains to House Bill 1054 which proposes to establish a state certification and regulation program for physicians' assistants. The Resolution calls for an amendment to House Bill 1054 which would require that such assistants work under the direct prescription supervision or direction of a licensed physician. The Committee recommends the adoption of Resolution # 21.

Mr. Speaker, I move the adoption of this portion of the report.

(The motion to adopt carried.)

**Resolution # 16—Salute to Senator William Cason
and**

Resolution # 17—Salute to Senator Albert Spradling

The Committee reviewed Resolution # 16 and Resolution # 17. While we feel that both gentlemen mentioned in the resolutions deserve commendation, it was considered more appropriate to offer in lieu thereof the following substitute Resolution:

Resolved, That the Missouri State Medical Association extends its sincere appreciation to the Governor of Missouri and his Task Force on Medical Liability, the President pro tem of the Senate and his select committee on Medical Malpractice for their efforts to alleviate the medical liability insurance crisis in Missouri, and be it further

Resolved, That a copy of this Resolution be sent to the Governor, the Chairman of his Task Force, the President pro tem of the Senate and the Chairman of his select committee.

The Committee recommends the adoption of this substitute Resolution.

Mr. Speaker, I move the adoption of this portion of the report.

(The Speaker invited discussion. Dr. Hubert Ritter spoke to both resolutions stating that the Committee's report should not be adopted and the original resolutions should be reinstated.)

Dr. T. M. Macdonnell moved to amend the substitute resolution to include Resolution # 16 and Resolution # 17 as written.

Dr. Stanley Peterson then moved that action on Resolutions # 16 and # 17, the substitute resolution and the proposed amendment be postponed until the next session of the House on April 4. The motion was seconded.

Dr. James Stokes called for a point of order which was clarified.

Dr. Ritter then called for the question and a standing vote. The Speaker called for a vote on the motion to postpone action until the session on April 4. The motion carried.)

Resolution # 32—U. S. Department of Health

Resolution # 32 pertains to the establishment of a separate Department of Health with cabinet status to be headed by a physician. The Reference Committee recommends adoption of this resolution.

Mr. Speaker, I move the adoption of this portion of the report.

(The motion to adopt was approved.)

Resolution # 36—Advertising

Resolution # 36 pertains to resisting efforts of the federal government to interfere with the ethics of the medical profession relative to advertising.

The Committee realizes that advertising is not the same as solicitation of patients and, while the Resolution has merit, the subject is complex enough to warrant further study. Therefore, the Committee recommends referral of this Resolution to the Commission on Medical Economics, Third Party Medicine and Governmental Relations.

Mr. Speaker, I move the adoption of this portion of the report.

(The motion to adopt carried.)

**Resolution # 38—Repeal of Law Requiring
Testing for Efficacy by FDA**

The Reference Committee discussed Resolution # 38 and feels that while it has merit, there is no adequate substitute at the present time for this particular function of the FDA.

Therefore, the Committee recommends that this Resolution not be adopted.

Mr. Speaker, I move the adoption of this portion of the report.

(The Speaker invited discussion. Dr. Jost spoke to the resolution, recommending that it be approved.)

A delegate called for a standing vote. The standing vote resulted in adoption of this portion of the report and supported the Committee's recommendation that Resolution # 38 not be adopted.)

The Speaker invited Dr. William C. Allen, Chairman, to present the report of the Reference Committee on Medical Education and Public Welfare.

MEDICAL EDUCATION AND PUBLIC WELFARE

The meeting of the Reference Committee on Medical Education and Public Welfare was held at 3 PM in the Westport Room of the Crown Center Hotel on Thursday, April 1, 1976. All members of the Committee were present.

The Council Minutes assigned to this Reference Committee, including portions of the minutes of the meetings of May 31, 1975, Sept. 13, 1975, Dec. 13, 1975, Jan. 31, 1976 and the Supplemental Report of the Council were reviewed and approved.

The Committee considered and approved the report of the Committee on Voluntary Health Agencies.

The report of the Commission on Continuing Education and Health Manpower was approved by the Committee, and we would like to commend the Commission for their dedicated work which resulted in approval by the AMA of the MSMA Session for Category I Credit and subsequent approval of MSMA to serve as an accrediting body for institutions and organizations that become eligible to provide CME Programs in the state of Missouri.

The Committee considered the report of the Commission on Interspecialty Medicine and recommends approval with commendation to the Commission and the groups they represent for again sponsoring one or more scientific sessions which, combined with other program elements, have provided what appears to be another outstanding scientific program for this 118th Annual Session of the MSMA.

Mr. Speaker, I move the adoption of this portion of the report.

(The motion to adopt was approved.)

**Resolution # 5—Role of the Commission on
Interspecialty Medicine**

The Reference Committee heard considerable discussion in regard to Resolution # 5. In consideration of the charge to the Commission on Interspecialty Medicine already stated in the Bylaws, the Reference Committee recommends referral of Resolution # 5 to the special attention of the Council for determination of carrying out the already stated charge to the Commission on Interspecialty Medicine.

Mr. Speaker, I move the adoption of this portion of the report.

(The motion to adopt this portion of the report carried.)

Resolution # 6—Involvement of Medical Students

(Introduced by Boone County Medical Society)

The Reference Committee recommends approval of Resolution # 6.

Mr. Speaker, I move the adoption of this portion of the report.

(Dr. Ben Moranville of Columbia spoke in favor of Resolution # 6. The motion to adopt this portion of the report was approved.)

Resolution # 12—FMGs Represented on State Board of Registration for the Healing Arts

The Reference Committee heard considerable discussion of Resolution # 12. While the Committee is sympathetic to the point of this resolution, it was felt that Resolution # 12 did not necessarily provide a solution to the problems that might be occurring and, in addition, it might create a precedent which could pose further problems. Therefore, the Committee recommends that Resolution # 12 not be approved.

Mr. Speaker, I move the adoption of this portion of the report.

(The Speaker invited discussion. Dr. Maminta arose to speak to the resolution. He indicated that in view of discussions and information received since the introduction of the resolution, he felt that its purpose had been accomplished in part and asked for permission to withdraw Resolution # 12. The Speaker ruled in his favor, stating that Resolution # 12 is withdrawn.)

Resolution # 31—Health Manpower Legislation

The Reference Committee recommends that Resolution # 31 be approved.

Mr. Speaker, I move the adoption of this portion of the report.

(The motion to adopt was approved.)

Resolution # 34—Joint Commission on Accreditation for Hospitals

The Reference Committee recommends the approval of Resolution # 34.

Mr. Speaker, I move the adoption of this portion of the report.

(The motion to adopt was approved.)

Resolution # 35—Quackery—Health Frauds

The Reference Committee recommends approval of Resolution # 35.

Mr. Speaker, I move the adoption of this portion of the report.

(The motion to adopt carried.)

The Speaker invited Dr. T. N. Cofer, Chairman of the Reference Committee on Reports of Officers, to present his report.

REPORTS OF OFFICERS

The Reference Committee on Reports of Officers met at 3:30 PM April 1, 1976 in the Penn Valley Room, Crown Center Hotel in Kansas City, Missouri. All members were present.

The Reference Committee on Reports of Officers has considered the Council Minutes, Report of the President, Remarks of the President-Elect, Report of the Secretary, Report of the Treasurer, Report of the Executive Secretary, Report of the Woman's Auxiliary and Report of the Committee on Publications and recommends acceptance of these reports.

The Reference Committee on Reports of Officers has considered the Report of the Ad Hoc Committee on Meeting of Component Medical Society Representatives. Having

heard many favorable reports on the output coming from this meeting, the Committee recommends that this report be accepted and continued.

The Reference Committee on Reports of Officers has considered the Report of the Committee on Planning and recommends acceptance.

Mr. Speaker, I move the adoption of this portion of the report.

(The motion to adopt was approved.)

Resolution # 7—Student Delegate Appointments to the Reference Committee

Since student delegates already are granted the same rights and privileges of the delegates and already are participating as reference committee members, no further action is necessary. Therefore, the Reference Committee recommends that Resolution # 7 not be adopted.

Mr. Speaker, I move the adoption of this portion of the report.

(The motion to adopt carried. Resolution # 7 was not approved.)

Resolution # 8—Seating for Student Delegates

The Reference Committee considered Resolution # 8. Whereas separate seating for student delegates already is provided, the Committee feels no need for further action and, therefore, recommends that Resolution # 8 not be adopted.

Mr. Speaker, I move the adoption of this portion of the report.

(The motion to adopt was approved. Resolution # 8 was not adopted.)

Resolution # 10—A Change in the Constitution and

Resolution # 39—Change of MSMA Meeting Date

The Reference Committee has considered Resolution # 10 and Resolution # 39.

The discussion during the Committee hearings reflected the need for two sessions of the House of Delegates annually. In order to implement this concept for 1976 and permanently thereafter, the following two substitute resolutions are submitted for Resolution # 10 and Resolution # 39. The first substitute Resolution instructs the Council to call a special session of the House of Delegates for the fall of 1976. The second substitute Resolution proposes a constitutional amendment to accomplish this special session on a permanent basis.

The first recommended Substitute Resolution is as follows:

WHEREAS, The work of the House of Delegates is constantly increasing in scope and size, and

WHEREAS, The time to consider all this increased work properly and thoroughly is in one limited annual meeting per year, and

WHEREAS, Medical legislation, both State and Federal, is increasing in size and numbers to such an extent that due consideration by the House of Delegates is extremely difficult to cover in one annual session, therefore, be it

Resolved, That the House of Delegates of the MSMA instructs the Council to call a special meeting of the House of Delegates in the fall of 1976 and be it further

Resolved, That the time and place of this meeting be determined by the Council of the MSMA.

Mr. Speaker, I move adoption of this portion of the report.

(The motion to adopt carried and the substitute resolution was adopted.)

The second recommended Substitute Resolution is as follows:

WHEREAS, The work of the House of Delegates is constantly increasing in scope and size, and

WHEREAS, The time to consider all this increased work properly and thoroughly is in one limited annual meeting per year, and

WHEREAS, Medical legislation, both State and Federal, is increasing in size and numbers to such an extent that due consideration by the House of Delegates is extremely difficult to cover in one annual session, therefore, be it

Resolved, That Article VI, Section 1 of the Constitution of MSMA be changed to read:

"The Association shall hold an annual Spring session and an interim Fall session of the House of Delegates at places fixed by the House of Delegates, the time of which shall be fixed by the Council."

Mr. Speaker, it is the Reference Committee's understanding that this second Substitute Resolution calling for an amendment of the Constitution of the MSMA will be voted on at the next annual meeting of this Association.

(The Speaker stated that the substitute resolution for Resolution # 39 requires a change in the Constitution and will lay on the table until the 119th Annual Session in 1977 and will be voted on at that time.)

The Speaker invited Dr. Norma Farmer, Chairman, to present the report of the Reference Committee on Necrology.

NECROLOGY

The Reference Committee on Necrology met in the Century Room of the Crown Center Hotel on Thursday, April 1, 1976.

The Reference Committee on Necrology of the Missouri State Medical Association regrettably reports that there have been 73 deaths among members since the 1975 Annual Session, whose names are attached to this report. With this in mind, the Necrology Committee offers the following resolution:

WHEREAS, There have been 73 deaths among our members since the 1975 Annual Session, and

WHEREAS, Each of these members is missed as an individual as well as for his contributions to the practice of medicine and to the Missouri State Medical Association, and

WHEREAS, The loss of each member is felt by all members, as well as his loved ones and close associates, and, we are confident, the patients he has served with dedication, and

WHEREAS, Condolences in the form of the Memoriam Perpetuum have been sent to the immediate family of each deceased member, therefore, be it

Resolved, That this same expression of sympathy be sent to each immediate family, and be it further

Resolved, That the House of Delegates now pay personal tribute by standing for a moment of silence in memory of each of the 73 members we have lost and whose names will be recorded in the minutes of this Annual Session.

Mr. Speaker, I move that the Report of the Reference Committee on Necrology be approved.

(The motion was approved and the Speaker asked the members of the House of Delegates to stand for a moment of silence as indication of the approval of the motion.)

MEMBERS DECEASED SINCE THE 1975 ANNUAL SESSION

Young, Robert H., Moberly
Kozal, Francis L., Crystal City
Culbertson, William F., Kansas City
Rogers, John A., Clayton
Rice, Carl E., Glendale
Martin, Forrest L., Nevada
Peterson, Milton C., Sun City, Ariz.
Robichaux, Eugene B., Excelsior Springs
Keeble, Charles B., St. Louis
Turner, Rush, St. Louis
Peck, Chester R., Jr., Kennett
Lanning, Richard C., Ste. Genevieve
Sevin, Omar R., Rockhall, Md.
Ogilvie, John H., Gravois Mills

Lieb, Otto V., St. Louis
Powers, John M., Independence
O'Leary, James L., St. Louis
Farley, Claude C., Kansas City
Bass, B. J., Salem
Shumate, L. St. Clair, Reeds Spring
Schroeder, Henry A., St. Thomas, V. I.
Kopp, Jules H., St. Louis
King, Walter R., Kansas City
Dinelli, Frank E., Poplar Bluff
Shackelford, Horace H., St. Louis
O'Sullivan, George A., St. Louis
Ector, Henry J., Mexico
Sterling, John A., St. Louis
Wood, William W., West Plains
Neun, William F., St. Louis
Freimuth, Louis E., St. Louis
Forgrave, Leon P., St. Joseph
Lansche, Elmer A., St. Louis
Bazzano, Gaetano, St. Louis
Wade, James P., St. Louis
Bersche, Bertram L., St. Louis
Urban, Edgar D., Sikeston
Giesler, Donald H., Osceola
Boutros, Amin, Kansas City
Brown, James L., St. Louis
Wallace, Hilen K., St. Joseph
Smith, John R., St. Louis
Cook, Oliver W., Caruthersville
Koessel, Arthur W., St. Louis
Hamilton, Eugene H., Joplin
Switzer, Clyde, Overland Park, Kan.
Stegman, Elmer G., Raytown
Gorelick, David F., Springfield
Haynes, Solon E., Kansas City
Kelly, Marshall W., Jefferson City
Schaf, Mary L., St. Louis
Sanders, Robert D., St. Louis
Friedman, Bernard, St. Louis
Roufa, Joseph F., St. Louis
Doane, William L., Kansas City
Freeman, Spencer L., Kirksville
Stolar, Jacob, St. Louis
Lassar, Gilbert N., St. Louis
McEnery, Joseph P., St. Louis
McCarthy, Thomas D., St. Louis
Arnold, Eugene L., St. Louis
Greenberg, Charles, Los Angeles, Calif.
Pickens, E. Allen, Fulton
Allen, Claude J., Rich Hill
Lembeck, Joseph A., St. Louis
Inkley, John J., St. Louis
Eigel, Edwin G., St. Louis
Sievers, Edward F., Hollywood Beach, Fla.
Dann, David S., Kansas City
Coudhuri, Ajit K., St. Louis
Thurman, Joseph, Potosi

(A moment of silence was held.)

The Speaker invited new business.

Introduction of New Business

The House of Delegates approved the introduction of Resolution # 43 by a two-thirds vote. The resolution was introduced by Dr. George L. Hawkins, Jr.

Resolution # 43—Creation of an Ad Hoc Committee on Medical Malpractice

WHEREAS, The problem of medical malpractice insurance coverage represents a most pressing problem to the practice of medicine in the State of Missouri, and

WHEREAS, The present legislative proposals will not solve this problem, and

WHEREAS, This problem will profoundly influence the quality of persons entering into the practice of medicine, the type of medical specialty that such persons will enter, and the quality and cost of medical care, and

WHEREAS, This problem encompasses all persons in the health delivery system, therefore he it

Resolved, That a special Ad Hoc Committee be appointed to analyze the problems of medical malpractice, analyze the legislative accomplishments in other states concerning this problem and bring back to the House of Delegates of the Missouri State Medical Association recommendations concerning the resolution of this problem, and he it further

Resolved, That the Committee be allowed to solicit the participation of members of the Missouri Osteopathic Society and members of the Missouri State Hospital Association in resolution of this problem, and he it further

Resolved, That this Committee be adequately funded to seek legal counsel for the framing of legislative relief.

(Referred to the Reference Committee on Constitution and Bylaws.)

At this time, the Speaker granted the request of Dr. Frederick D. Peterson to withdraw his proposed resolution entitled "MSMA District Vice-Councilor" since the *Resolved* had been placed in the amended portion of Resolution # 1 which was being considered by the Committee on Constitution and Bylaws.

The House of Delegates approved the introduction of Resolution # 44 by a standing two-thirds vote. The resolution was introduced by Dr. Paul L. Friedman.

**Resolution # 44—Support of Model Fireworks Bill
—HB 1160**

WHEREAS, Missouri is one of eight states which still allows retail sale of class C fireworks (except in some counties and municipalities where they have been banned); and

WHEREAS, Fireworks are a menace to citizens of the state of Missouri, there being an estimated 200 injuries from fireworks per year in Missouri and 6,500 per year in the United States; and

WHEREAS, Two-thirds of these injuries occur among children; and

WHEREAS, 16% of these injuries involve the eye, which is often blinded; and

WHEREAS, Adequate legislation is needed which prohibits the retail sale of fireworks and which permits fireworks only for licensed public displays; now therefore, he it

Resolved, That the Missouri State Medical Association supports the model fireworks bill (House Bill No. 1160) which calls for a ban on fireworks sale in Missouri, he it further

Resolved, That copies of this resolution be sent to each state legislator and the Governor.

(Referred to Reference Committee on Medical Education and Public Welfare.)

The House of Delegates approved the introduction of Resolution # 45 by a two-thirds vote.

Resolution # 45—BNDD Number for Temporary Licenses

WHEREAS, The State Board of Registration of the Healing Arts has ruled that only those with permanent licenses and their own BNDD number may prescribe controlled substances, and

WHEREAS, This ruling prohibits those with temporary licenses from prescribing controlled substances on an outpatient basis as previously allowed by using the hospital BNDD number with individualized suffix, and

WHEREAS, Those most greatly affected by this ruling will be the teaching centers' outpatients, who in most cases are the poor and already under-served, and

WHEREAS, For most affected outpatients there will be no alternative of care and therefore will result in a serious adverse effect on their well-being, be it

Resolved, That the Missouri State Medical Association supports the practice of allowing graduate trainees in approved training programs with temporary licenses to be allowed to prescribe controlled substances in their closely supervised institutional setting, and that their use of such privilege be constrained to the care of patients to whom they are assigned for supervised patient responsibility in the institution(s) where they are training.

(Referred to the Reference Committee on Medical Education and Public Welfare.)

Resolution—Specialty Representation in the MSMA House of Delegates**Resolution—Unified Membership with the American Medical Association****Resolution—Mandatory AMA Membership****Resolution—MSMA Assessment****Resolution—New AMA Public Relations Program**

Since the five resolutions named above did not receive a two-thirds vote of approval by the House of Delegates for introduction, their introduction was not allowed and they were not considered by the House. Copies of the above five resolutions had been given to the Delegates at the First Session of the House of Delegates on Thursday, April 1, 1976.

There being no further business, the Speaker adjourned the Second Session of the House of Delegates.

THIRD SESSION

Sunday, April 4, 1976

The Third Session of the MSMA 118th House of Delegates was called to order by the Speaker, Dr. James T. Brown, at 7:30 AM in the Century Room.

Dr. Albert Cross, Chairman, gave the report of the Credentials Committee and declared the presence of a quorum. With unanimous consent, the Speaker dispensed with a roll call.

Dr. Irving H. Clark, Chairman, was invited to present the report of the Nominating Committee.

NOMINATING COMMITTEE

The Nominating Committee submits to the House of Delegates the following names on the slate of officers for the ensuing year for approval by the Association:

Vice-President—Dr. Hubert A. Ritter, St. Louis

Vice-President—Dr. C. H. Appleberry, Rivermines

Vice-President—Dr. Miles C. Whitener, St. Louis County

AMA Delegate—Dr. James C. Sisk, St. Louis

AMA Alternate Delegate—Dr. Richard P. Bowles, Liberty

AMA Delegate—Dr. Rae W. Froelich, Lebanon

AMA Alternate Delegate—Dr. Melvin C. Kasten, Cape Girardeau

Speaker—Dr. James T. Brown, Springfield

Vice-Speaker—Dr. Edwin K. Burford, Jr., Cape Girardeau

Mr. Speaker, I move the adoption of this portion of the report.

(The Speaker invited additional nominations from the floor. Hearing none, he entertained a motion that nominations cease and that a unanimous ballot be cast for the slate as presented by the Nominating Committee. The motion was seconded and carried.)

Dr. John I. Matthews, Secretary, announced that the following Councilors had been elected for two-year terms:

Dr. John N. Martin, First District

Dr. Donald R. Judd, Third District

Dr. H. Peter Ekern, Fifth District

Dr. John Torontow, Sixth District

Dr. Andrew McCanse, Seventh District

Dr. Walter A. German, Eighth District

Dr. Claude W. Cooper, Ninth District

At this time, the Speaker invited nominations for the office



Newly-elected members of the MSMA Council are (left to right) Dr. Walter A. German, Eighth District; Dr. John Torontow, Sixth District; and Dr. H. Peter Ekern, Fifth District.

of President-Elect. Dr. Stanley S. Peterson of Springfield nominated Dr. Howard J. McAlhany of Springfield. The nomination was seconded by Dr. Joseph L. Fisher of St. Joseph, Dr. George L. Hawkins of St. Louis, Dr. Irving H. Clark of Kansas City and a Delegate, Dr. Doyle C. McCraw of Bolivar, moved that nominations cease and that Dr. McAlhany be elected by acclamation.

(The motion was seconded and approved.)

The President-Elect was escorted to the Speaker's stand where he made a brief acceptance statement. Mrs. McAlhany also was escorted to the Speaker's stand.

Dr. Burford, Vice-Speaker, then called for additional reports of reference committees.

Dr. James C. Sisk, Chairman, was invited to present the additional report of the Reference Committee on Constitution and Bylaws.

CONSTITUTION AND BYLAWS

The meeting of the Reference Committee on Constitution and Bylaws was held in the Ambassador Room of the Crown Center Hotel at 5:30 PM on April 2, 1976. All members of the Committee were present. We had one item to consider.

Resolution # 43—Creation of an Ad Hoc Committee on Malpractice

The Reference Committee recommends that Resolution # 43 be adopted as amended, as follows:

WHEREAS, The problem of medical liability insurance coverage represents a most pressing problem to the practice of medicine in the state of Missouri, and

WHEREAS, The present legislative proposals will not solve this problem, and

WHEREAS, This problem will profoundly influence the quality of persons entering into the practice of medicine, the type of medical specialty that such persons will enter and the quality and cost of medical care, and

WHEREAS, This problem encompasses all persons in the Health Delivery System, therefore, be it

Resolved, That an ad hoc committee of the Medical-Legal Commission be appointed to analyze the problems of medical liability, analyze the legislative accomplishments in other states concerning this problem and bring back to the House of Delegates of the Missouri State Medical Association recommendations concerning the resolution of this problem, and be it further

Resolved, That the Committee be allowed to solicit the participation of members of the Missouri Association of Osteopathic Physicians and Surgeons and members of the Missouri State Hospital Association in the resolution of this problem, and be it further



President-Elect Howard J. McAlhany (left) confers with President Max S. Franklin after his election at the Third Session of the House of Delegates

Resolved, That this Committee be adequately funded to seek legal counsel for the framing of legislative relief.

Mr. Speaker, I move the adoption of this report.

(The motion to adopt carried and Resolution # 43 as amended was approved.)

The Speaker invited Dr. William C. Allen, Chairman, to give the report of the Reference Committee on Medical Education and Public Welfare.

MEDICAL EDUCATION AND PUBLIC WELFARE

The Reference Committee on Medical Education and Public Welfare met at 6 PM on Friday, April 2, 1976. All members of the Committee were present.

Resolution # 44—Support Model Fireworks Bill —HB 1160

The Committee heard testimony on Resolution # 44 which was introduced by Dr. Friedman.

The Reference Committee was informed that House Bill 1160 is currently still in the Legislative Committee. Therefore, it is unlikely to be considered for passage in this session of the Legislature. The Committee, therefore, amends Resolution # 44 by adding the following Resolution:

Resolved, That the Missouri State Medical Association continues to support a model fireworks bill which calls for a ban on the sale of fireworks in Missouri, and uses whatever means is appropriate in support of such a bill until such legislation is successfully enacted.

Resolution # 44 as now amended would read as follows:

Be It Resolved, That the Missouri State Medical Association supports the model fireworks bill (House Bill No. 1160) which calls for a ban on fireworks sale in Missouri, be it further

Resolved, That the Missouri State Medical Association continues to support a model fireworks bill which calls for a ban on the sale of fireworks in Missouri, and uses whatever means is appropriate in support of such a bill until such legislation is successfully enacted, be it further

Resolved, That the copies of this Resolution be sent to each state legislator and the governor.

Mr. Speaker, the Reference Committee recommends adoption of Resolution # 44 as amended. I move the adoption of this portion of the report.

(The motion to adopt was approved and Resolution # 44 was adopted as amended.)

Resolution # 45—BNDD Number for Temporary Licenses

In regard to Resolution # 45—BNDD Number for Temporary Licenses which was introduced by Dr. Lieb, the Reference Committee recommends approval of Resolution # 45.

Mr. Speaker, I move the adoption of this portion of the report.

(The motion to adopt was approved and Resolution # 45 was adopted.)

The Vice-Speaker then asked Dr. James Brown, Speaker, to reassume the Chair.

Unfinished Business

The Speaker reminded the House of Delegates that Resolutions # 16 and # 17 and a proposed substitute amendment had been postponed at the Second Session for consideration at the Third Session. He recognized Dr. Hubert Ritter, author of both resolutions.

Resolution # 16—Salute to Senator William Cason

Resolution # 17—Salute to Senator Albert Spradling

Dr. Ritter referred to the Report of the Reference Committee on Miscellaneous Affairs, which was presented during the Second Session of the House, and moved that lines 22 through 42 on page 2, which concerned Resolutions # 16 and # 17 and the Committee's proposed substitute resolution for Resolutions # 16 and # 17, be tabled indefinitely.

(Dr. Ritter's motion was seconded and carried.)

The Speaker invited any further unfinished business. There being none, he invited new business. There was none.

Installation of Officers

The Speaker invited the Officers and Councilors to stand in front of the podium where the Association Secretary, Dr. John I. Matthews, administered the oath of office.

The Speaker invited President Max S. Franklin to announce his committee and commission appointments for the 1976-1977 year. Members whose terms had not expired were not mentioned and it is assumed that they will continue to serve.

Committee Appointments

Committee on Constitution and Bylaws—R. Stacy Long, Kansas City, Chairman for 1976-1977 and George Bohigian, St. Louis (terms to expire in 1979).

Committee on Legislative Affairs—John I. Matthews, Jefferson City, Chairman; Max S. Franklin, St. Louis; Robert E. Bregant, Jefferson City; Howard J. McAlhany, Springfield; Hubert A. Ritter, St. Louis; and John N. Martin, St. Joseph (one year terms).

Committee on Planning—Elbert R. Olson, Springfield and James A. Hasek, Mountain Grove (terms to expire in 1981); Paul H. Rother, St. Charles, Chairman for 1976-1977.

Committee on Voluntary Health Agencies—Joseph L. Fisher, St. Joseph and Paul S. Quinn, Springfield (terms to expire in 1979); William C. Allen, Chairman for 1976-1977.

Commission Appointments

Commission on Public Affairs—Richard C. Hedges, Excelsior Springs; Byron E. Watts, Jefferson City, Chairman for 1976-1977; Armand E. Brodeur, St. Louis; Daniel M. Fraser, St. Louis; Vernon H. Balster, St. Louis County (terms to expire in 1979).

Commission on Medical Economics, Third Party Medicine and Governmental Relations—Herbert C. Wiegand, St. Louis; Mary K. McCaffree, Jefferson City; Max A. Heeb, Sikeston; James L. Carpenter, St. Charles; Rae W. Froelich, Lebanon (terms to expire in 1979); Charles W. Chastain, Farmington, Chairman for 1976-1977.

Commission on Continuing Education and Health Manpower—Robert Mathews, Kansas City; William D. Bradshaw, Columbia; Manuel R. Comas, St. Louis; John C. Soucy, St. Charles; Charles A. Worley, Sweet Springs (terms to expire in 1979); George H. Ladyman, Poplar Bluff, Chairman for 1976-1977.

Commission on Medical-Legal Affairs—Charles J. Ash, Springfield; Earl P. Holt, St. Louis; William J. Medlicott, Kansas City; Bernard Draper, Rolla; Robert L. Willcoxon, Joplin (terms to expire in 1979); Irving H. Clark, Kansas City, Chairman for 1976-1977.

Commission on Interspecialty Medicine—(It is the policy for the President of the Association to appoint representatives of the specialty organizations making up the Commission on Interspecialty Medicine as recommended by the specific organizations. Some of these organizations had not provided names of their proposed representatives by this date. Following are appointments of representatives who had been recommended. The name of the Representative will be followed by the name of the Alternate.)

Missouri State Allergy Association—Stanley L. Goldman, Kansas City and Robert E. Bolinske, Creve Coeur; *Missouri Society of Anesthesiologists*—J. O. Alyea, Cape Girardeau; *Missouri Dermatologic Society*—Larry E. Millikan, Columbia and William K. Hall, St. Charles; *Missouri Academy of Family Physicians*—Charles A. Worley, Sweet Springs and John M. Haight, Kansas City; *Missouri Society of Internal Medicine*—Thomas W. Burns, Columbia and Clement B. Grebel, St. Louis; *Missouri Ob-Gyn Society*—John P. Ferguson, Springfield; *Missouri Ophthalmological Society*—Wilbur H. Lewis, St. Louis and Michael F. Pernoud, St. Louis; *Missouri Orthopedic Association*—Robert E. Funsch, St. Louis and Frank R. Williams, Kansas City; *Missouri Society of Pathologists, Inc.*—Henry C. Allen, St. Louis and Thomas J. Fritzlen, Kansas City; *Missouri Chapter of the American Academy of Pediatrics*—Don S. Overend, Springfield; *Physical Medicine and Rehabilitation*—Franz U. Steinberg, St. Louis and Charles Peterson, Columbia; *Missouri Radiologic Society*—William H. McAlister, St. Louis and Ronald G. Evens, St. Louis; *Missouri Thoracic Society*—Daniel L. Schlozman, Kansas City and John R. Goheen, Kansas City; *Federation of Missouri Urologists*—Karl J. Kurtz, Kansas City and Milton B. Ozar, Kansas City.

The Speaker requested an invitation for the meeting place of the next Annual Session of the Association. On behalf of the St. Louis Medical Society and St. Louis County Medical Society, Dr. Donald R. Judd invited the MSMA to hold the 119th Annual Session in St. Louis on April 14-17, 1977. The invitation was accepted.

There being no additional business, the Vice-Speaker declared the 118th Annual Session adjourned.

REGISTRATION OF THE 118TH ANNUAL SESSION

First Councilor District—64

Acuff, R. Philip, St. Joseph
Allen, E. Warren, Carrollton
Andrews, Bernice W., Kansas City
Arst, H. E., Kansas City
Balhuizen, John, Kansas City
Bare, Edward F., Tarkio
Bauman, Henry C., Maryville
Beck, Paul M., St. Joseph
Benson, Scott C., St. Joseph
Bohnsack, Ralph W., Brookfield
Boone, Daniel, Kansas City
Broyles, W. A., Bethany
Burk, E. K., Liberty
Carlin, Albert L., Stanberry
Carpenter, G. T., St. Joseph
Castillo, Michael E., Kansas City
Christ, Martin H., St. Joseph
Cofer, Thomas N., Chillicothe
Cook, Jerry W., Kansas City
Conrad, Joseph, Chillicothe
Craig, Owen H., St. Joseph
Cross, Albert D., Trenton
Dernoncourt, John E., Smithville
Dixon, John R., Brookfield
Dolan, C. T., N. Kansas City
Dyer, Gary A., St. Joseph
Fakhoury, Donald A., Kansas City
Fischer, Jose, Kansas City
Fisher, Joseph L., St. Joseph
Gilliland, Charles E., Cameron
Harr, Patrick B., Maryville
Hayes, Paul W., St. Joseph
Hedges, Richard C., Excelsior
Springs

Herman, Allen I., St. Joseph
Ide, Lucien W., St. Joseph
Jimenez, J., St. Joseph
Kuenzi, Donald, Kansas City
Latimer, Walter N. A., Kansas City
Littlejohn, Robert T., N. Kansas City
McDonald, Wilbur P., St. Joseph
McPhee, W. R., Kansas City
Mandler, George, Chillicothe
Martin, John N., St. Joseph
Matteson, Frank B., Grant City
Morgan, Troy, Albany
Mullican, Charles N., St. Joseph
Nixon, Edward D., Gallatin
Perico, C. J., N. Kansas City
Petersen, H. E., St. Joseph
Redmond, William, St. Joseph
Roberts, Phyllis G., St. Joseph
Rost, Wm. B., St. Joseph
Schertz, T. B., N. Kansas City
Skenar, D. E., St. Joseph
Sportsman, W. L., Smithville
Stallard, Donald J., St. Joseph
Stratman, C. A., Kansas City
Thomas, F. Anthony, Kansas City
Trinidad, Hermanito R., Chillicothe
Wadlow, Ernest E., St. Joseph
Whitsell, Earl, St. Joseph
Willumsen, Henry C., St. Joseph
Yoon, Jin Soo, Chillicothe

Second Councilor District—14

Avila, Patricio C., Hannibal
Buben, Robert W., Hannibal
Campbell, James E., Macon
Cohrs, Clarence C., Moberly
Collins, Cretchen D., Macon
Comer, J. Russell, New London
Fleming, Thos S., Moberly

Foreman, Phillip B., Hannibal
Hudson, G. R., Moberly
Kruse, Carl R., Palmyra
Middleton, John W., Louisiana
Pitney, Phillip W., Louisiana
Plowman, Edward M., Hannibal
Roller, Merrill J., Hannibal

Third Councilor District—115

Allen, Henry C., St. Louis
Anderson, John M., St. Louis
Anglo, Luis B., St. Louis
Arney, William, St. Louis
Bauer, Eugene A., St. Louis
Biddy, Ralph L., St. Louis
Bohigian, George, St. Louis
Boldizar, Albert G., St. Louis
Bolozos, George D., St. Louis
Bolton, Robert, St. Louis
Bradley, Richard, St. Louis
Brookes, Robert D., St. Louis
Brown, Seymour, Chesterfield
Bruns, Kenneth, St. Louis
Bryan, Wm. T. K., Brentwood
Carlin, M. Richard, St. Louis
Casey, Edwin J., St. Louis
Cassel, Melvin A., St. Louis
Chishu, M. Ishaq, St. Louis
Cooper, T. J., St. Louis
Costello, Cyril, St. Louis
Dames, Richard J., St. Louis
Dehner, Jonathan D., St. Louis
DeUngria, Estelita G., St. Louis
DeUngria, Pablo, St. Louis
Drews, Robert C., Clayton
Evens, Ronald G., St. Louis
Fallon, Richard H., St. Louis
Finnegan, Joseph V., St. Louis
Ford, Thomas, Columbia
Franklin, Max S., St. Louis
Fraser, Daniel M., St. Louis
Frederick, Raymond O., St. Louis
Friedman, Paul L., St. Louis
Gandlmayr, Jack, St. Louis
Geise, August W., St. Louis
Gladney, John H., St. Louis
Goldring, David, St. Louis
Grindon, J. B., St. Louis
Guillen, Diosdada T., Chesterfield
Gunn, Walter T., St. Louis
Hall, Wm. K., St. Charles
Hamilton, William P., St. Louis
Hanes, Lily Ann, Webster Groves
Hawker, William D., St. Louis
Hawkins, George L., St. Louis
Heins, James N., St. Louis
Hill, George J., St. Louis

Hofstatter, Leopold, St. Louis
Hollo, Yencel W., St. Louis
Huck, Richard, St. Louis
Johnson, Mitchell D., St. Louis
Jones, Otey S., St. Louis
Jost, Charles, Florissant
Judd, Donald, St. Louis
Kayes, Jack, St. Louis
Keelely, John G., St. Louis
Kelly, John J., St. Louis
Kerr, David N., University City
Knorre, Harry L. S., St. Louis
Kowert, Edward H., St. Louis
Kuczer, Arnold, Creve Coeur
Lawton, Larry, St. Louis
LeBlanc, Leo, St. Louis
Lieb, Francis X., St. Louis
Link, Alexander J., St. Louis
Lottes, J. Otto, St. Louis
Luedde, Philip S., St. Louis
McAlister, William H., St. Louis
MacDonald, Robert R., Jr., St. Louis
Maher, Thos. F., St. Louis
Max, Paul F., St. Louis
Manansala, Antonio Q., St. Louis
Maminta, Napoleon S., Chesterfield
Mell, Roger L., St. Louis
Meyer, Melvin E., St. Louis
Milster, Clyde R., St. Louis
Montes, A. C., St. Louis
Mueller, C. E., Creve Coeur
Mueller, Robert, St. Louis
Murray, John P., St. Louis
O'Neal, Lawrence, St. Louis
Pennington, F. E., St. Louis
Perry, H. Mitchell, St. Louis
Presnell, C. A., St. Louis
Probststein, J. G., St. Louis
Quick, Richard T., St. Louis
Randolph, Bernard C., St. Louis
Reisler, David M., St. Louis
Ritter, Hubert A., St. Louis
Rusan, T. E., St. Louis
Salanga, P. B., St. Louis
Sciortino, John S., St. Louis
Scopelite, Joseph A., St. Louis
Sevastianos, A. E., St. Louis

Third Councilor District (Continued)

Sherwin, Charles S., St. Louis
Signorelli, A. J., St. Louis
Sletten, Ivan, Kirkwood
Smith, Kenneth, St. Louis
Spalding, Donald G., St. Louis
Steele, J. T., St. Louis
Steinberg, Franz U., St. Louis
Stokes, James M., St. Louis
Stoneman, William, St. Louis
Tess, Allen F., Florissant

Thiel, J. Allen, St. Louis
Thoma, George E., St. Louis
Thym, Henry P., Ballwin
Turner, C. M., St. Louis
Walz, Bruce J., St. Louis
Weir, Don C., St. Louis
Whittico, James M., St. Louis
Williams, Carol F., St. Louis
Wissner, Seth, St. Louis
Zografakis, George, St. Louis

Fourth Councilor District—54

Aronberg, Jerome, Creve Coeur
Bailey, W. H., St. Louis
Balster, Vernon, St. Louis
Barragan, Hector, St. Louis
Barrow, Jack, St. Louis
Bolsinske, Robert E., St. Louis
Bonney, S. C., Washington
Callahan, Donald E., St. Louis
Catanzaro, Rudolph E., St. Louis
Chinsky, Murray, St. Ann
Cridder, Russell J., St. Charles
Deitchman, Robert B., Clayton
Deles, Vicente D., Crystal City
Del Pizzo, Ferdinand, Jr., St. Charles
Diehr, M. A., St. Louis
Fabito, Daniel C., Maryland Heights
Felder, James P., St. Charles
Finkel, Barney W., Jennings
Fletes, James W., St. Louis
Guillen, Rodolfo T., Chesterfield
Hettlage, Louis P., Troy
Kabir, Mohammed A., St. Louis
Korenblatt, Phillip, St. Louis
Laird, John M., Florissant
Lewin, W. Howard, St. Louis
Linder, Howard E., Ballwin

McGinnis, William F., St. Louis
Magness, Guy N., University City
Marcus, Morris D., St. Louis
Mayer, Robert A., Ballwin
Middleton, Jerry N., St. Louis
Meneses, Orlando G., Des Peres
Miller, Charles, St. Louis
Muenster, Vincent F., St. Charles
Ohlms, David Lee, St. Louis
Peterson, Frederick, St. Louis
Rachlin, Maxwell, Ladue
Richardson, Geo. A., Union
Richardson, W. R., Union
Rother, Paul H., St. Charles
Ruhling, Rudy, St. Louis
Rutledge, John F., Crystal City
Schaefer, Jacques, St. Louis
Schoentag, John S., St. Louis
Schwartz, Melvin M., St. Louis
Sisk, James, St. Louis
Towers, O. W., St. Charles
Valach, Frank J., St. Louis
Viers, Wayne A., St. Louis
Vitale, Nicholas S., St. Louis
West, Joseph W., Kirkwood
Whitener, Miles C., St. Louis
Workman, George M., Hermann
Yalcin, Enver, St. Louis

Fifth Councilor District—91

Allen, R. W., Columbia
Allen, William C., Columbia
Anderson, Philip, Columbia
Anderson, Tom R., Columbia
Baker, A. S., Columbia
Belden, E. A., Jefferson City
Black, Samuel P. W., Columbia
Bowe, Edwin E., Jefferson City
Bradley, William W., Centralia
Bradshaw, W. D., Columbia
Bregant, Robert, Jefferson City
Clark, Kendall A., Jefferson City
Cooper, Charles W., Jefferson City
Cope, James C., Columbia
Cotter, John H., Mexico
Craig, H. W., Columbia
Davis, David, Columbia
Davis, Leonard L., Jr., Mexico
Davis, William E., Columbia
Durst, Henry, Fulton
Dwyer, Thomas L., Mexico
Eggers, G. W. N., Jr., Columbia
Ekern, H. Peter, Mexico
Exon, C. S., Jefferson City
Favazza, Armando R., Columbia
Fuchs, George J., Columbia
Garner, Royal S., Jefferson City
Giffen, L. E., Jefferson City
Gordon, James S., Jefferson City
Griffin, William T., Columbia
Hall, Robert, Versailles
Hart, William M., Columbia
Hubbell, Ira G., Columbia
Husain, Syed Arshad, Columbia
James, Elizabeth, Columbia
Jolly, Benjamin N., Mexico
Joseph, Donald J., Columbia
Kays, Ken, Columbia
Kallenbach, Glen P., Mexico
Kanagawa, Harold K., Jefferson City
Keown, Kenneth, Columbia
Ledwick, Gwilym S., Columbia
Lyle, Robert Ray, Versailles
McCaffree, Mary K., Jefferson City
McCluer, Shirley, Columbia
McHaney, John W., Jefferson City

McLelland, Bruce A., Columbia
Mackaman, Bert J., Columbia
Marco, Philip J., Columbia
Matthews, John I., Jefferson City
Meinershagen, C. W., Jefferson City
Millikan, Larry E., Columbia
Mitchell, Franklin L., Columbia
Montie, Joseph, Columbia
Moon, Agnes, Columbia
Moranville, B. A., Columbia
Morgan, Philip E., Columbia
Nichols, W. Kirt, Columbia
Nieuwenhuizen, Maarten, Columbia
Payne, David, Columbia
Peterson, Charles R., Columbia
Pickard, Clarence M., Columbia
Ritterbusch, James K., Fulton
Rodes, Ned D., Mexico
Ross, Gilbert, Jr., Columbia
Sanders, J. S., Jefferson City
Scott, E. David, Jefferson City
Shaw, Wm. J., Jr., Fayette
Shull, G. Donald, Jefferson City
Sicat, Alfonso V., Warrensburg
Silver, Donald, Columbia
Simonds, John F., Columbia
Siripipat, Pallop, Mexico
Siu, Kenneth, Jefferson City
Spratt, John S., Jr., Columbia
Stephenson, Hugh E., Jr., Columbia
Strussel, Kenneth, Columbia
Stuart, Byron M., Boonville
Sydow, Henry, Fulton
Tanner, Robert, Jefferson City
Van Vranken, E. E., Jefferson City
Walters, John H., Columbia
Walters, Laura, Columbia
Washburn, J. Loren, Versailles
Watson, Trevor F., Columbia
Watts, Byron E., Jefferson City
Weiss, James M. A., Columbia
White, Joseph M., Columbia
Wilson, George P., Columbia
Winn, George W., Boonville
Yarbro, J. W., Columbia

° Doctor of Osteopathy.

Sixth Councilor District—31

Block, Jerry, Sedalia
 Boydston, Catherine O., Odessa
 Boydston, W. Wayne, Odessa
 Campbell, Albert J., Sedalia
 Cook, Thomas B., Richmond
 Cope, Joseph S., Lexington
 Daum, Harold F., Sedalia
 Davault, G. K., Richmond
 Eklund, Alfred W., Pleasant Hill
 Francisco, Edgardo C., Nevada
 Goldbert, I. E., Braymer
 Hansen, A. L., Butler
 Haynie, William W., Butler
 Hobbs, Geo. W., Warrensburg
 Johnson, C. S., Warrensburg
 Jones, Keith D., Warrensburg

Kelling, Jordan, Waverly
 King, Richard H., Clinton
 McBurney, C. Alex, Slater
 McCorkle, E. Lee, Marshall
 Maddox, A. R., Sedalia
 Magee, Robert L., Eldorado
 Springs
 Maxson, T. Reed, Warrensburg
 Mou, Bin, Nevada
 Pascoe, James J., Nevada
 Raynor, Richard, Marshall
 Smith, William J., Windsor
 Torontow, R. John, Nevada
 Van Dyke, Elmer H., Sedalia
 Worley, Charles A., Sweet Springs
 Wray, Rolla B., Nevada

Seventh Councilor District—203

Abaqueta, Gamaliel P., Kansas
 City
 Amoury, Raymond A., Kansas
 City
 Ashby, Jennifer, Lake Quivira,
 Ks.
 Asher, A. Graham, Kansas City
 Barloon, James H., Kansas City
 Barelli, Pat, Kansas City
 Barry, William B., Kansas City
 Bauer, Lafe W., Prairie Village,
 Ks.
 Beard, Wm. J., Kansas City
 Becker, Richard R., Kansas City
 Benoit, Hector W., Jr., Kansas
 City
 Bergmann, Victor H., Kansas City
 Bickley, James E., Leawood, Ks.
 Bills, Marvin L., Kansas City
 Blim, R. Don, Kansas City
 Borsuk, Gregory M., Kansas City
 Boyer, Philip, Lee's Summit
 Brick, Jeffrey M., Kansas City
 Brown, Elwyn S., Kansas City
 Brown, Menzie H., Kansas City
 Brown, Robert S., Kansas City
 Brumm, L. W., Kansas City
 Bruner, Robert E., Kansas City
 Buchanan, Barbara, Kansas City
 Buckner, Robert, Kansas City
 Budke, Harold A., Kansas City
 Buhler, Victor B., Kansas City
 Caldwell, John K., Kansas City
 Calovich, Emery R., Kansas City
 Carlson, Hjalmar E., Kansas City
 Case, William F., Overland Park
 Ks.
 Chaudhary, Asghar, Kansas City
 Clark, I. H., Grandview
 Cobb, James R., Kansas City
 Coffey, Ralph R., Kansas City
 Cotton, Thomas R., Kansas City
 Cowan, George A. B., Kansas City
 Deeken, James, Kansas City
 DeMott, John D., Kansas City
 Dixon, George D., Kansas City
 Dorsch, Ervin H., Independence
 Drake, Roy F., Kansas City
 Drowns, Bruce V., Kansas City
 Elias, David J., Independence
 Ellfeldt, Howard J., Kansas City
 Engelmann, C. E., Kansas City
 Engleman, Reinhold, Kansas City
 Evans, Lawrence L., Kansas City
 Fairchild, Robert C., Kansas City
 Farney, Jacob P., Kansas City
 Fedotin, Michael, Leawood, Ks.
 Feist, George V., Kansas City
 Forsythe, Robert, Kansas City
 Fowler, Fred D., Kansas City
 Fowler, James W., Kansas City
 Freeman, Jerry C., Kansas City
 Fritzen, Thomas J., Kansas City
 Fuhrman, Donald, Kansas City
 Gauthier, Charles P., Kansas City
 Goldman, Stanley, Kansas City
 Goodson, Wm. H., Kansas City
 Goolsbee, Robert L., Mission
 Hills, Ks.
 Graham, Wallace H., Kansas City
 Griffin, Donald R., Prairie
 Village, Ks.
 Griffith, John A., Kansas City
 Haight, J. Max, Kansas City
 Haith, Edward E., Kansas City
 Hall, Ralph R., Kansas City
 Harless, Morris S., Kansas City
 Hartwig, F. H., Shawnee Mission,
 Ks.
 Hazen, Robert M., Kansas City
 Herman, E. M., Kansas City

Herver, John W., Shawnee
 Mission, Ks.
 Hibbard, Blaine Z., Kansas City
 Hickerson, William H.,
 Independence
 Hoadley, William D., Shawnee
 Mission, Ks.
 Hoch, George P., Jr., Kansas
 City
 Hooper, Sam D., Grandview
 Hopkins, James P., Kansas City
 Hollinger, L. A., Kansas City
 Hollweg, Kenneth C., Kansas City
 Holman, Joseph G., Kansas City
 Hughes, Michael, Kansas City
 Hunkeler, John D., Kansas City
 Hyde, L. L., Kansas City
 Jacobs, Morton, Kansas City
 Jacob, Walter P., Kansas City
 Jannett, J. Harvey, Kansas City
 Johnson, Dallas A., Kansas City
 Jonas, Harry S., Independence
 Jones, Gale O., Kansas City
 Kahn, Marvin, Kansas City
 Kandt, Ray, Kansas City
 Katf, Nicola Y., Kansas City
 Kavanan, Jose C., Kansas City
 Kelling, Douglas, Overland Park,
 Ks.
 Kellogg, Aurora G., Kansas City
 Keltner, Raymond O., Kansas City
 Kendall, Forrest, Jr., Prairie
 Village, Ks.
 Kerr, H. Harper, Kansas City
 Kingsbury, Helen, Shawnee
 Mission, Ks.
 Knoch, H. Kermit, Kansas City
 Koonst, Paul G., Kansas City
 Lambie, Rodger W., Kansas City
 Landers, Burnell, Kansas City
 Lee, King Y., Kansas City
 Leslie, Stephen A., N. Kansas
 City
 Lichter, Joseph, Kansas City
 Linville, Howard E., Kansas City
 Long, Stavc, Kansas City
 Lyddon, Harold R., Jr., Kansas
 City
 McAfee, Gordon, Kansas City
 McCanse, Andrew, Kansas City
 McDonnell, John, Kansas City
 McIntosh, Donald E., Kansas City
 McKeel, Thomas B., Kansas City
 McVay, James R., Kansas City
 MacGee, Edwin Ernest, Kansas
 City
 MacInnis, Florence E., Kansas
 City
 Mathews, Robert M., Kansas City
 Masucci, Joseph, Kansas City
 Maver, John H., Jr., Kansas City
 Meiklejohn, D. C., Independence
 Melgard, S. Ross, Kansas City
 Miller, Gerald L., Kansas City
 Montello, S. A., Kansas City
 Moreano, Armando H., Kansas
 City
 Morgan, David B., Kansas City
 Murphy, Robert J., Kansas City
 Newman, Robert L., Kansas City
 Novak, Edward J., Leawood, Ks.
 Noback, R. K., Kansas City
 O'Farrell, Thomas P., Kansas City
 Osborne, Jere O., Kansas City
 Ozar, Milton B., Kansas City
 Pakula, Sidney F., Kansas City
 Peterson, Carl M., Kansas City
 Petit, C. A., Kansas City
 Piepergerdes, Larry G., Kansas City
 Pinkerton, Joe A., Jr., Kansas City

Seventh Councilor District (Continued)

Poonawala, Huseni E., Kansas
 City
 Pryor, Harold Joe, Leawood, Ks.
 Roth, Alfred D., Mission, Ks.
 Sabates, Felix N., Kansas City
 Saferstein, Lester, Kansas City
 Samuelson, Edward A., Kansas
 City
 Sanders, Donald C., Kansas City
 Sauer, Gordon, Kansas City
 Schlozman, Daniel L., Kansas
 City
 Schottman, G. W., Kansas City
 Schuman, Norvin D., Kansas City
 Scott, John E., Lee's Summit
 Seely, Clark W., Kansas City
 Shapiro, L. M., Kansas City
 Shelden, Russell D., Kansas City
 Siegel, Carl D., Kansas City
 Slankard, J. Edward, Kansas City
 Slickman, R. A., Kansas City
 Smith, Katherine W., Kansas City
 Smith, O. Dale, Kansas City
 Smull, Ned, Kansas City
 Sneed, Philip, Kansas City
 Spalding, Wilber B., Jr., Kansas
 City
 Stacey, W. R., Independence
 Staggs, Wm. A., Kansas City
 Steffen, Lawrence F., Kansas City
 Stelmach, Walter J., Kansas City
 Stuber, Jack L., Shawnee Mission,
 Ks.
 Stribling, Tom, Independence
 Stromberg, Eric D., Kansas City
 Tarson, Solomon S., Overland
 Park, Ks.

Throne, E. M., Kansas City
 Tiojanco, Reynaldo, Kansas City
 Tokrisna, Aphiraks, Lee's Summit
 Trowbridge, Barnard C., Kansas
 City
 Trowbridge, E. H., Kansas City
 Underwood, Dick H., Kansas City
 Valins, Eugene, Kansas City
 Vaughn, James W., Kansas City
 Vergara, Gerardo G., Kansas City
 Vogel, Arthur P., Shawnee
 Mission, Ks.
 Volk, George E., Kansas City
 Wade, Frederick E., Kansas City
 Wall, Harry C., Kansas City
 Weir, Robert K., Kansas City
 Wheeler, Charles, Kansas City
 White, Charles H., Prairie
 Village, Ks.
 Whittaker, C. Keith, Kansas City
 Wicks, Edwin O., Kansas City
 Wilhelm, Warren F., Kansas City
 Williams, George P., Kansas City
 Willoughby, James W., Kansas
 City
 Wise, George W., Kansas City
 Withers, Orval R., Kansas City
 Woodman, Grey M., Kansas City
 Woods, S. Dwight, Kansas City
 Wu, William Q., Kansas City
 Wurster, Jerry B., Kansas City
 Wurster, W. Joel, Kansas City
 Youll, Donald, Kansas City
 Youmans, R. A., Kansas City
 Young, James, Kansas City
 Youngblood, James P., Kansas
 City

Eighth Councilor District—52

Anderson, Paul B., Neosho
 Anthony, Dallas D., Springfield
 Apostol, Andres G., Monett
 Ash, Charles J., Springfield
 Bopp, J. Ronald, Joplin
 Brown, Jim, Springfield
 Clary, William F., Springfield
 Esther, John, Joplin
 Ferguson, John P., Springfield
 Gaston, Sam L., Joplin
 German, Walter A., Springfield
 Glover, Kenneth, Mt. Vernon
 Griffin, Evelyn, Buffalo
 Griffin, Olin A., Buffalo
 Hall, David W., Springfield
 H'Doubler, Peter B., Springfield
 Herfkens, Kenneth, Springfield
 Hilton, Paul E., Joplin
 Huewe, Douglas A., Springfield
 Isaac, Anita M., Springfield
 Ivy, Berry, Springfield
 Johnston, Joseph L., Springfield
 Knabb, Kenneth E., Springfield
 Koon, Ben, Kansas City
 Lemmon, G. B., Springfield
 Lockhart, Charles E., Springfield
 Loeb, Richard H., Springfield

Lorenc, Ernest, Springfield
 Lurie, Hal, Springfield
 McAlhany, Howard, Springfield
 McCraw, Doyle C., Bolivar
 Macdonnell, Thomas M.,
 Marshall
 Menchetti, Don, Springfield
 Merideth, Mary J., Cassville
 Olive, George C., Neosho
 Parkison, D. E., Shell Knob
 Penninger, Wm. H., Springfield
 Peterson, Stanley S., Springfield
 Podrecca, Guido, Springfield
 Quinn, Paul S., Springfield
 Roberts, Howard H., Joplin
 Roper, Stanley D., Ozarks
 Singleton, Marvin, Joplin
 Simpson, Emerson L., Springfield
 Spalding, David L., Springfield
 Sturtevant, H. N., Springfield
 Tarrasch, Ernest L., Springfield
 Wakeman, J. Newton, Springfield
 Walker, William M., Springfield
 Willcox, Robert, Joplin
 Wyrsch, Leo M., Springfield
 Yancey, Daniel L., Springfield

Ninth Councilor District—12

Cooper, Claude W., Thayer
 Draper, Bernard, Rolla
 Elders, Frank A., Cuba
 Froelich, R. W., Lebanon
 Hasek, James A., Mountain Grove
 Mayuga, Laureano G., Cabool
 Morgan, W. Thomas, West Plains

Smith, C. Franklin, Willow
 Springs
 Spears, Joe L., Cabool
 Stricker, E. A., St. James
 Wall, Joe A., Houston
 Wiles, Jack N., West Plains

Tenth Councilor District—32

Boonyasai, Boonfu, Pilot Knob
 Boonyasai, Vatana, Pilot Knob
 Burford, Edwin K., Cape
 Girardeau
 Camp, Richard V., Jr., Poplar
 Bluff
 Chapman, Jean A., Cape
 Girardeau
 Chastain, C. Wm., Farmington
 Cozean, Charles H., Cape
 Girardeau
 Farmer, Norma, Farmington
 Fraser, R. A., Poplar Bluff
 Frazier, R. L., Sikeston
 Hansbrough, Eugene T., Poplar
 Bluff
 Heeb, Max A., Sikeston
 Hoja, W. Alex, Poplar Bluff
 Hunt, Robert J., Cape
 Girardeau
 Jung, J. Marshall, Cape Girardeau

Jung, Christopher H., Cape
 Girardeau
 Kandalaft, Fuad H., Dexter
 Kasten, Melvin C., Cape
 Girardeau
 Laatsch, Robert H., Poplar Bluff
 Ladyman, George H., Poplar
 Bluff
 McDonald, E. F., Jackson
 Magaletta, George E., Cape
 Girardeau
 Masters, Edwin J., Sikeston
 Rapp, Harold B., Cape Girardeau
 Ridgion, John D., Kennett
 Ritter, Raymond A., Jr., Cape
 Girardeau
 Roberts, Perry T., Cape Girardeau
 Ruff, T. E., Poplar Bluff
 Sargent, John P., Sikeston
 Simpel, R. V., Potosi
 Shoff, Milton, Cape Girardeau
 Turner, Kirby L., Poplar Bluff

Guest Physicians—81

Albert, Ingrid Renee, Creve Coeur	Giessel, Michael, Overland Park, Kan.	Melia, Bernie, Prairie Village, Kan.	Solomon, William R., Ann Arbor, Mich.
Albert, Stewart, Creve Coeur	Grayson, Leonard D., Quincy, Ill.	Moore, Morris, St. Louis	Stander, Frank, Pueblo, Colo.
Auster, Barry, St. Louis	Hart, John, Columbia	Morgan, W. Keith, Morgantown, W. Va.	Steele, Clarence H., Kansas City, Kan.
Azarnoff, Daniel L., Kansas City, Kan.	H'Doubler, Hogan, Springfield	Muryan, E. A., Independence	Sterling, B. Williams, Kansas City
Bauer, Walter C., St. Louis	Hesser, Herbert H., Shawnee, Kan.	Neiburger, James B., Kansas City	Strassman, Bernard, New Athens, Ill.
Beavers, Dennis D., Omaha, Neb.	Hill, George J., II, Huntington, W. Va.	Norris, Charley, Kansas City, Kan.	Sunwood, In S., St. Louis
Bell, C. D., Roca, Neb.	Holmes, Frederick, Kansas City, Kan.	Parrott, Max H., Portland, Ore.	Sunwood, Young C., St. Louis
Bennett, Joann M., Atlanta, Ga.	Jackson, Frederick E., Fallbrook, Calif.	Petersen, A. Gene, Kansas City	Tantleff, A. Robert, Overland Park, Kan.
Bernards, Walter C., Portland, Ore.	Jones, Henry E., Ann Arbor, Mich.	Preskorn, Sheldon H., Roeland Park, Kan.	Tetzlaff, A. D., Prairie Village, Kan.
Burns, James T., Silver Spring, Md.	Kadas, Louis, Belleville, Ill.	Puckett, Lin, Columbia	Thurston, Don L., St. Louis
Carlin, Betty P., Clayton	Kauffman, Edward, St. Louis	Raskind, Murray, Seattle, Wash.	Tichenor, Rowan E., Kansas City, Kan.
Cooksey, Jon, Kirkwood	King, M. Adele, Kansas City	Richert, Kathryn, Kansas City	Vitto, Jouni, St. Louis
Crouch, John A., Kansas City	Kirkendall, Walter, Houston, Tex.	Rodgers, Dorothy L., Columbia	Walker, Gary K., Whiteman AFB
Dixon, Herbert K., Joplin	Krochmal, Lincoln, Columbia	Roller, James A., Columbia	Wallach, Elliot A., Belleville, Ill.
Dockhorn, Robert, Kansas City	Lobeck, Charles C., Columbia	Rossiter, James W., Columbia	Walls, William J., Kansas City, Kan.
Eiseman, B., Denver, Colo.	Loewinger, Robert J., St. Louis	Santiago, Eleanor M., Prairie Village, Kan.	Watts, Clark, Columbia
Epstein, John, San Francisco, Calif.	Lytton, George J., Hastings, Neb.	Schneider, Jack M., Lubbock, Tex.	White, John P., Kansas City
Estrada, Tulio, Columbia	McDonald, Eugene W., Kansas City	Scott, William E., Iowa City, Ia.	Whitley, Douglas, Overland Park, Kan.
Finkel, Barry W., St. Louis	Martin, Richard H., Columbia	Serrill, W. Scott, Columbia	Woofter, Joseph C., Parkersburg, W. Va.
Fortune, Cedric, Olathe, Kan.		Shealy, C. Norman, LaCrosse, Wis.	
Geraghton, Thomas F., Shawnee Mission, Kan.		Slavin, R. G., St. Louis	
Gerbie, Albert B., Chicago, Ill.			

There were 668 members, 81 guest physicians, 173 exhibitors, 176 Woman's Auxiliary members, 81 guests registered and 20 staff members. Total registration was 1,199.

118TH ANNUAL SESSION EXHIBITORS

Altman-Singleton and Company, Kansas City	Meyer Laboratories, Inc., Fort Lauderdale, Fla.
Biomedical Laboratories, Inc., St. Louis	MSMI, Inc., Jefferson City
Blue Cross-Blue Shield, St. Louis-Kansas City	Organon Pharmaceuticals, West Orange, N. J.
Boehringer Ingelheim Ltd., Elmsford, N. Y.	Pitney Bowes, Kansas City
Bristol Laboratories, Syracuse, N. Y.	Rowell Laboratories, Inc., Baudette, Minn.
Ciba Pharmaceutical Company, Kansas City	Sandoz Pharmaceuticals, East Hanover, N. J.
Clinical Laboratories of St. Louis, Inc., Creve Coeur	Schering Laboratories, Kenilworth, N. J.
Coca-Cola USA, Chicago, Ill.	Searle Laboratories, Chicago, Ill.
Encyclopaedia Britannica, Inc., Chicago, Ill.	Social Security Disability Insurance, Kansas City
Forrest T. Jones & Company, Inc., Kansas City	Stuart Pharmaceuticals, Wilmington, Del.
General American Life Insurance—Medicare, St. Louis	Summit Medical Distributors, Lee's Summit
Johnston's, Inc., Shawnee, Kan.	Tab Products Company, Kansas City
The Key Company, St. Louis	United Medical Equipment Company, Kansas City
Lemmon Pharmacal Company, Sellersville, Pa.	Valley View Computing Systems, Overland Park, Kan.
Mallinckrodt, Inc., Hazelwood	Vitalograph Medical Instrumentation, Lenexa, Kan.
The Medical Protective Company, Fort Wayne, Ind.	

In lieu of Exhibits, the following firms made cash donations to assist in the sponsorship of Scientific Sessions:

Eli Lilly and Company, Indianapolis, Ind.	Parke, Davis & Company, Detroit, Mich.
Geigy Pharmaceuticals, Ardsley, N. Y.	A. H. Robins Company, Richmond, Va.
Mead Johnson Laboratories, Evansville, Ind.	Smith Kline & French Laboratories, Philadelphia, Pa.

Missouri State Medical Foundation

Minutes of the Annual Meeting Crown Center Hotel, Kansas City April 2, 1976

The meeting was called to order by Albert D. Cross, M.D., President. Dr. Cross stated that the minutes of the 1975 Annual Meeting in St. Louis on April 18 had been published in the July 1, 1975 issue of *Missouri Medicine*. The minutes were approved as published.

Dr. Cross directed attention to the financial statement of the Foundation as of Dec. 31, 1975, which reads as follows:

FINANCIAL STATEMENT FOR THE YEAR 1975

LENNERTSON & COMPANY
CERTIFIED PUBLIC ACCOUNTANTS
ST. LOUIS, MISSOURI 63144

January 28, 1976

Missouri State Medical Foundation
113 Madison
Jefferson City, Missouri 65101

Gentlemen,

We have examined the balance sheet of Missouri State Medical Foundation as of December 31, 1975, and the related statements of support, revenue and expenses and changes in fund balances for the year then ended. Our examination was made in accordance with generally accepted auditing standards, and accordingly included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

In our opinion, the aforementioned statements present fairly the assets and liabilities of Missouri State Medical Foundation at December 31, 1975, arising from cash transactions, and the revenues collected and expenditures made by it during the year ended, on a basis consistent with that of the preceding year.

Yours very truly,
LENNERTSON & COMPANY

EXHIBIT A

Missouri State Medical Foundation Balance Sheet (Cash Basis), December 31, 1975

Assets			
<i>Cash</i>			
Checking Account	\$ 46,798.51		
Savings Account #05842586	49,500.15		
Total Cash		\$ 96,298.66	
Loans Receivable from Medical Students	\$567,407.85		
Less Reserve for Losses	9,252.34	558,155.51	
		<u>\$654,454.17</u>	
<i>Fund Reserve</i>			
Balance January 1, 1975		\$608,755.71	
Additions for the Year 1975			
Interest on Student Loans	\$ 11,508.70		
Interest on Bank Deposits	2,413.94		
Contributions (detailed below)	2,240.00		
Assessment of Members, Active \$10.00 ..	41,030.00	57,192.64	
		<u>\$665,948.35</u>	
<i>Less Expenses for the Year 1975</i>			
Administrative Services	\$ 6,600.00		
Professional Fees	940.00		
Printing, Meeting & Misc. Expense	583.55		
Provision for Losses on Student Loans ...	3,370.63	11,494.18	
		<u>\$654,454.17</u>	
<i>Contributions</i>			
Miller's Medical Arts Pharmacy, Inc., Boonville, Mo.	\$ 100.00		
Boonville Medical Group, Boonville, Mo.	100.00		
Max S. Franklin, M.D., St. Louis, Mo.	100.00		
Woman's Auxiliary to Mo. State Medical Assn.	800.00		
Woman's Auxiliary to Jackson County Med. Soc., Kansas City, Mo.	100.00		
Doyle C. McCraw, M.D., Bolivar, Mo.	100.00		
Sub Total	\$1,300.00		
Contributions under \$100 each	940.00		
Total Contributions		<u>\$2,240.00</u>	

Missouri State Medical Foundation Notes to Financial Statements December 31, 1975

1. *Income*. Accrued interest on outstanding loans at December 31, 1975 amounted to \$37,720.84 and is not included in the loan balances in Exhibit A.

2. *Student Loans*. Summary of Loans Receivable.

Loans Receivable January 1, 1975	\$522,579.83
Loans made during the year	90,250.00
	<u>\$612,829.83</u>
Less Loan Repayments	45,421.98
Loans Receivable December 31, 1975	<u>\$567,407.85</u>

Ron Ellison, Assistant Secretary, reported briefly on a new method of processing loans that has resulted in increased repayments. It was moved to approve the 1975 financial statement. The motion was seconded and carried.

Dr. Cross called for the next order of business which was the election to the Board of Trustees. He asked Dr. George Bohigian, Chairman, to present the report of the Nominating Committee.

Dr. Albert D. Cross was unanimously reelected to serve a five-year term on the Board of Trustees.

Dr. Max S. Franklin, incoming President of the MSMA, was unanimously elected as an Ex Officio member of the Board to replace Dr. R. Allen Chandler, retiring MSMA President.

Dr. Cross expressed appreciation to Mrs. James Gordon, Chairman of the MSMA Woman's Auxiliary's MSMF Committee, for attending the meeting. He also expressed appreciation for the increasing contributions to the MSMF by the Auxiliary.

Mrs. Gordon reported that the Auxiliary had contributed approximately \$3,000 to the MSMF in 1975 and that additional funds from the Auxiliary's Silent Auction at the Annual Session would be forthcoming.

There was a discussion concerning the advisability of continuing the \$10 dues assessment of active members for MSMF which would be considered at the 1977 Annual Session.

The President then called for introduction of new business. There being no new business, he announced that a short meeting of the MSMF Board of Trustees would immediately follow the Annual Meeting of the Missouri State Medical Foundation.

The meeting was adjourned.

Minutes of MSMF Board of Trustees Meeting Crown Center Hotel, Kansas City Friday, April 2, 1976

The meeting of the Board of Trustees of the Missouri State Medical Foundation was called to order by Albert D. Cross, M.D., President, immediately after the adjournment of the Annual Meeting.

The first order of business was the election of officers. On behalf of the Nominating Committee, Dr. George Bohigian, Chairman, nominated the following slate of officers for one-year terms:

President—Albert D. Cross, M.D., Trenton
Vice-President—Kenneth C. Hollweg, M.D., Kansas City
Secretary-Treasurer—Charles R. Doyle, M.D., St. Louis

It was moved, seconded and approved that these officers be elected by acclamation.

Mr. Ron Ellison of the MSMA staff was reappointed Assistant Secretary to assist in the administration of the Foundation's program.

The next order of business was discussion of a method for solicitation of contributions from the full membership of the MSMA. It was moved that members be encouraged to make personal contributions and memorial donations and to include the MSMF in their last will and testament through communications published in *MISSOURI MEDICINE*. The motion was seconded and carried.

As reported in the agenda for the meeting, the expenses

paid by the Foundation in 1975 totaled \$8,123.55, which includes \$6,600 for office salaries and \$1,523.55 for professional fee, stationery and other related expenses. The motion to approve these expenditures was seconded and approved.

There being no further business, the meeting was adjourned.

The Council Reports

Meeting of April 4, 1976

Max S. Franklin, M.D., St. Louis, President, and John N. Martin, M.D., St. Joseph, Chairman, presided at the meeting. Those present were Drs. Franklin and Martin; Howard J. McAlhany, Springfield; John I. Matthews, Jefferson City; Richard V. Bradley, St. Louis; R. Allen Chandler, Kansas City; Joseph V. Finnegan, St. Louis; J. Russell Comer, Hannibal; Donald R. Judd, St. Louis; Louis P. Hetlage, Troy; H. Peter Ekern, Mexico; John Torontow, Nevada; Andrew McCause, Kansas City; Walter A. German, Jr., Springfield; Claude W. Cooper, Thayer; Eugene T. Hansbrough, Poplar Bluff; Hubert A. Ritter, St. Louis; Robert A. Slickman, Kansas City; William D. Bradshaw, Columbia; Irving H. Clark, Kansas City; William C. Allen, Columbia; Messrs. Allen D. Smith, Kansas City; Hollister Smith, St. Louis; Roger Weis, Kansas City; Edward M. Hirsch, St. Joseph; Ray McIntyre, Royal O. Cooper, C. C. Swarens, Ron Ellison and Don Wilson, Staff.

ELECTION OF OFFICERS

President Franklin opened the meeting and introduced the new Councilors—Drs. H. Peter Ekern, Mexico, 5th District; R. John Torontow, Nevada, 6th District; Walter A. German, Jr., Springfield, 8th District. He also extended his congratulations to the Councilors who were reelected—Drs. John N. Martin, St. Joseph, 1st District; Donald R. Judd, St. Louis, 3rd District; Andrew McCause, Kansas City, 7th District; and Claude W. Cooper, Thayer, 9th District.

Dr. John N. Martin was elected Chairman of the Council and, thereby, became the presiding officer.

Dr. Andrew McCause was elected Vice-Chairman of the Council, Dr. John I. Matthews was elected Secretary and Dr. Richard V. Bradley was elected Treasurer.

Dr. William D. Bradshaw, retiring 6th District Councilor, introduced Dr. R. John Torontow, the new 6th District Councilor.

MSMA HOUSE OF DELEGATES INTERIM SESSION

Mr. McIntyre reported that the House of Delegates had passed a resolution which directed the Council to call a special or interim session of the House of Delegates in the Fall of 1976. Mr. McIntyre stated that, apparently, the House felt that this session should be primarily concerned with legislative matters. It is hoped that this meeting can be held in late October or early November. The Association staff is to make suggestions as to date and place of the Interim Session to the Council.

WOMAN'S AUXILIARY

Dr. McAlhany stated that Mrs. George Wilson, President of the Woman's Auxiliary, has asked that he request the

Council's permission for the Auxiliary to cosponsor a Citizens Conference on Juvenile Justice. In 1973-1974, the Auxiliary was one of 17 organizations that sponsored a similar conference. The Missouri Division of Youth Services has again requested that the Auxiliary continue to participate in their juvenile delinquency prevention program.

A motion was made, seconded and approved to give the Council's support to the Auxiliary in the sponsorship of the Citizens Conference on Juvenile Justice.

STUDENT DELEGATES

Dr. Matthews stated that during the Annual Session, he had several conversations with the student delegates and indicated that he felt that it would be most helpful if a Councilor is assigned to each of the student delegates to help orientate them at the Annual Session. Dr. Judd indicated that he was in agreement with Dr. Matthews and stated that St. Louis Medical Society has been inviting the student delegates to its caucuses and has explained the structure of the Annual Session to them.

Dr. Martin stated that each Councilor who has student



Dr. John N. Martin of St. Joseph, First District Councilor, was elected Chairman of the MSMA Council for 1976-1977.

delegates from his area should take it upon himself to see that the student delegates attend the House of Delegates, reference committee meetings, etc.

Dr. Hetlage stated that he felt that a committee should be appointed to help Dr. Hubert Ritter with his campaign for the AMA Board of Trustees. Chairman Martin appointed the following to serve on this committee: Dr. Hetlage, Chairman; Drs. J. Russell Comer and Robert Slickman.

EDITORIAL BOARD

Dr. Finnegan reported that he would like to recommend that all the present members of the Editorial Board, with the exception of two members be reappointed. Dr. Finnegan said that he would make recommendations to the Council later for additional members. He stated that he also would like to appoint Dr. William Bradshaw to the Editorial Board.

The motion was made, seconded and carried to approve

of Dr. Finnegan's recommendations for appointments to the Editorial Board.

The motion was made, seconded and carried to approve the entire report.

It was pointed out that a change in the Bylaws had been adopted at the Annual Session whereby the expenses of Councilors for attendance at the Annual Session would be paid. Their expenses had not previously been paid. Dr. Bradley stated that this Bylaws change would not become effective until the 1977 Annual Session.

NEXT COUNCIL MEETING

Chairman Martin reported that the next Council Meeting will be held on May 22 at the Ramada Inn in Jefferson City with an Executive Session at 5 PM on Friday, May 21, followed by dinner.

The meeting was adjourned.

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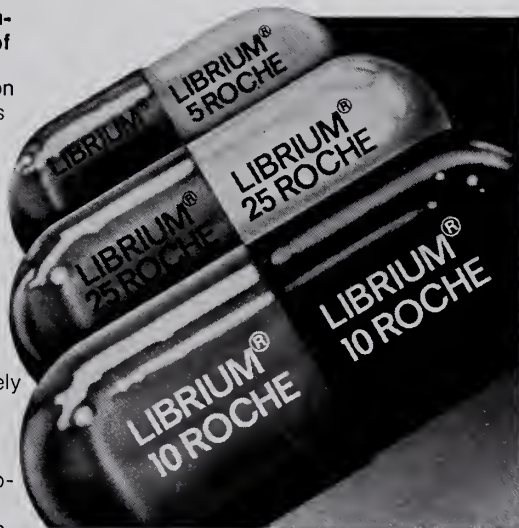
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Precautions: In the elderly and debilitated, and in children over six, limit to smallest effective dosage (initially 10 mg or less per day) to preclude ataxia or oversedation, increasing gradually as needed and tolerated. Not recommended in children under six. Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider individual pharmacologic effects, particularly in use of potentiating drugs such as MAO inhibitors and phenothiazines. Observe



usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions (e.g., excitement, stimulation and acute rage) have been reported in psychiatric patients and hyperactive aggressive children. Employ usual precautions in treatment of anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation have been reported very rarely in patients receiving the drug and oral anti-coagulants; causal relationship has not been established clinically.

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in most instances by proper dosage adjustment, but are also occasionally observed at the lower dosage ranges. In a few instances syncope has been reported. Also encountered are isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent and generally controlled with dosage reduction; changes in EEG patterns (low-voltage fast activity) may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice and hepatic dysfunction have been reported occasionally, making periodic blood counts and liver function tests advisable during protracted therapy.

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Missouri Medicine

JOURNAL OF THE MISSOURI STATE MEDICAL ASSOCIATION



JULY 15, 1976

VOLUME 73, NUMBER 7-X

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1976

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119th MSMA Annual Session
April 14-17, 1977, St. Louis

Missouri Medicine

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Rae W. Froelich, M.D., Lebanon
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Hubert A. Ritter, M.D., St. Louis
Lawrence W. O'Neal, M.D., St. Louis, *Alternate*
Robert A. Slickman, M.D., Kansas City
Hugh E. Stephenson, Jr., M.D., Columbia, *Alternate*

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Joseph V. Finnegan
Editor

Purposes of Association

THE PURPOSES of the Missouri State Medical Association are to bring into compact organization the entire medical profession of the State of Missouri with the view of the extension of medical knowledge and the advancement of medical science, to promote and elevate the standards of medical education and the enactment and enforcement of just medical and public health laws, to encourage friendly intercourse among physicians, to guard and sustain measures of interest and advantage to the public and the medical profession and to promote science, knowledge and skill among the medical profession.

*1950 MSMA Handbook
Centennial Issue*

How to Use This Directory

This Directory includes two rosters of physicians who are members of the Missouri State Medical Association.

The **Roster of Members by County Societies** on page 409 lists each county medical society in alphabetical order, the members of each county medical society and their **street addresses**.

If you are seeking a street address and do not know to which county medical society a member belongs, turn to the **Alphabetical Roster of Members** on page 391 which lists that member's name and the community in which he lives.

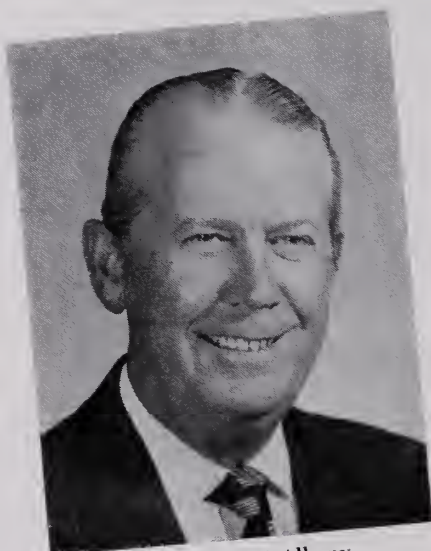
Locate the name of that community in the **Guide to County Medical Societies** on page 389 which tells you the county in which that community is located and the county medical society to which that member normally would belong.

The **Roster for the Woman's Auxiliary to the MSMA**, beginning on page 434, lists the officers, directors, committee chairmen, MSMA Advisory Council, presidents of county auxiliaries, districts, state past-presidents and members of each county auxiliary.

For other departments, please refer to the table of contents on the cover page.



Max S. Franklin
President



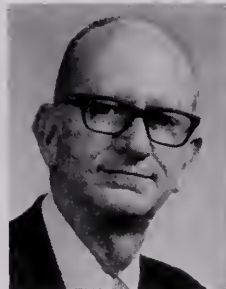
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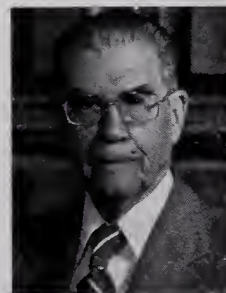
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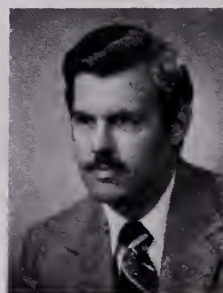
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Past President*



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Vice President

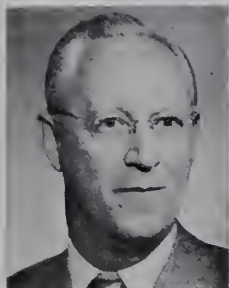


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Vice President

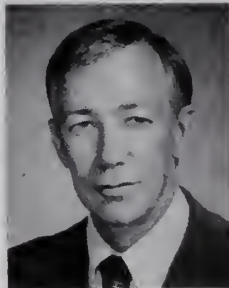
AMA Delegates



Stanley S. Peterson
(1975-1976)



James C. Sisk
(1977-1978)



Rae W. Froelich
(1975-1976, 1977-1978)



Robert A. Slickman
(1976-1977)



Hubert A. Ritter
(1976-1977)

Alternate Delegates



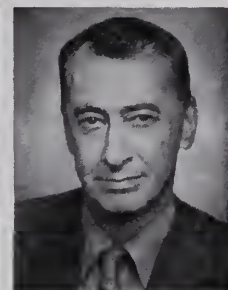
James C. Sisk
(1975-1976)



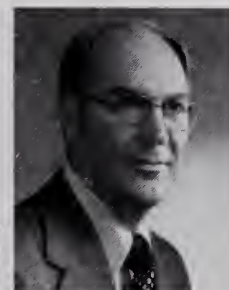
Melvin C. Kasten
(1975-1976, 1977-1978)



Hugh E. Stephenson, Jr.
(1976-1977)

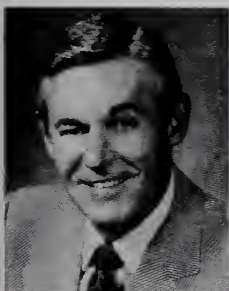


Lawrence W. O'Neal
(1976-1977)



Richard P. Bowles
(1977-1978)

The Council



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1st District
Chairman



J. Russell Comer
2nd District



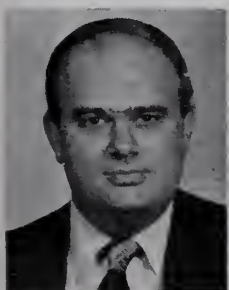
Donald R. Judd
3rd District



Louis P. Hetlage
4th District



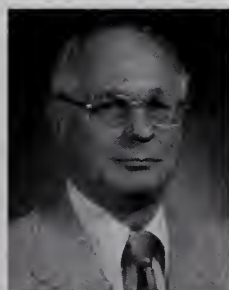
H. Peter Ekern
5th District



R. John Torontow
6th District



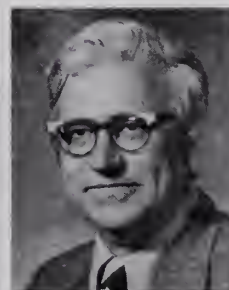
Andrew McCanse
7th District
Vice-Chairman



Walter A. German, Jr.
8th District



Claude W. Cooper
9th District



Eugene T. Hansbrough
10th District

MSMA Committees and Commissions

1976-1977

STANDING COMMITTEES

Executive Committee—Max S. Franklin, St. Louis, Chairman; Howard J. McAlhany, Springfield; John I. Matthews, Jefferson City; Richard V. Bradley, St. Louis; John N. Martin, St. Joseph; Andrew McCanse, Kansas City (1977).

Constitution and Bylaws—R. Stacy Long, Kansas City, Chairman (1979); Frederick D. Peterson, St. Louis (1977); Donald H. Beisner, Springfield (1978); Joseph Conrad, Chillicothe (1978); George Bohigian, St. Louis (1979).

Publication Committee—Joseph V. Finnegan, St. Louis, Chairman; William C. Mixson, Kansas City; Charles S. Sherwin, St. Louis; Bryon M. Stuart, Boonville; Wilfred E. Wooldridge, Springfield (1977).

Legislative Affairs—John I. Matthews, Jefferson City, Chairman; Andrew McCanse, Kansas City; John N. Martin, St. Joseph; Hubert A. Ritter, St. Louis; Howard J. McAlhany, Springfield; Robert E. Bregant, Jefferson City; Max S. Franklin, St. Louis (1977).

Planning—Paul H. Rother, St. Charles, Chairman (1978); J. Will Fleming, Moberly (1977); William D. Bradshaw, Columbia (1977); T. N. Cofer, Chillicothe (1978); James C. Cope, Columbia (1979); Charles P. McGinty, Cape Girardeau (1979); Harry D. Haas, Kansas City (1980); Francis X. Lieb, St. Louis (1980); James A. Hasek, Mountain Grove (1981); E. Rule Olson, Springfield (1981).

Voluntary Health Agencies—William C. Allen, Columbia, Chairman (1977); Melvin A. Cassell, St. Louis (1978); Carl Siegel, Kansas City (1978); Paul S. Quinn, Springfield (1979); Joseph L. Fisher, St. Joseph (1979).

STANDING COMMISSIONS

Public Affairs—Byron E. Watts, Jefferson City, Chairman (1979); Allen Klippel, St. Louis (1977); Joseph Kendis, St. Louis (1977); James D. Grable, Portageville (1977); Donald R. Germann, Kansas City (1977); Francis M. Corry, Springfield (1977); Wilbur B. Spalding, Jr., Kansas City (1978); Sharon Waggoner, St. Joseph (1978); A. J. Campbell, Sedalia (1978); Stanley G. Hall, Hannibal (1978); R. A. Ritter, Jr., Cape Girardeau (1978); Vernon H. Balster, St. Louis (1979); Daniel M. Fraser, St. Louis (1979); Armand E. Brodeur, St. Louis (1979); B. A. Moranville, Columbia (1979).

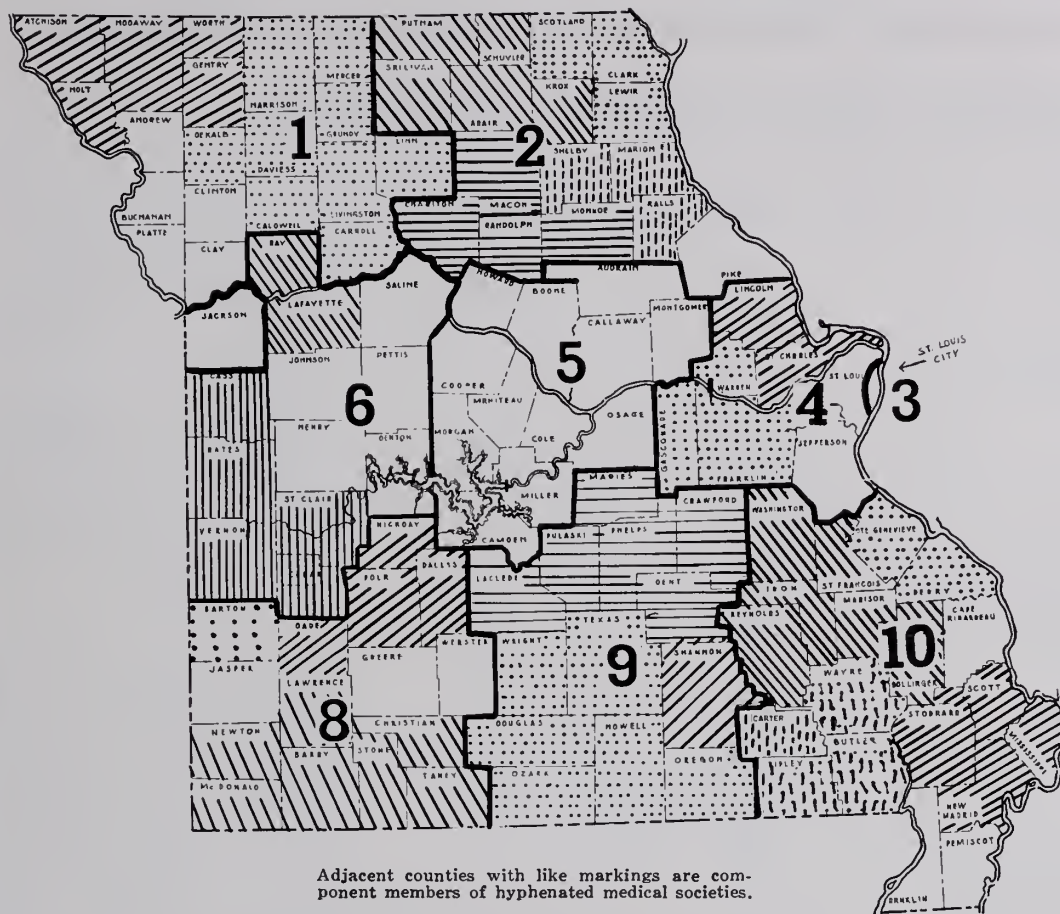
Medical Economics, Third Party Medicine and Governmental Relations—Charles W. Chastain, Farmington, Chairman (1977); John A. Griffith, Kansas City (1977); John M. Laird, Florissant (1977); E. Warren Allen, Carrollton (1977); John Torontow, Nevada (1977); A. E. Braverman, Kansas City (1978); R. Phillip Acuff, St. Joseph (1978); James O. Lottes, St. Louis (1978); John R. Esther, Joplin (1978); Stanley S. Peterson, Springfield (1978); Rae W. Froelich, Lebanon (1979); James L. Carpenter, St. Charles (1979); Max A. Heeb, Sikeston (1979); Marv K. McCaffree, Jefferson City (1979); Herbert C. Wiegand, St. Louis (1979).

Continuing Education and Health Manpower—George H. Ladyman, Poplar Bluff, Chairman (1978); W. Wayne Boydston, Odessa (1977); W. Thomas Morgan, Jr., West Plains (1977); Marvin A. Singleton, Joplin (1977); Robert B. Deitchman, St. Louis (1977); Robert Dettmer, Ironton (1977); Roland E. Lohmar, Columbia (1978); M. Kenton King, St. Louis (1978); Richard Hedges, Excelsior Springs (1978); H. Peter Ekern, Mexico (1978); Charles A. Worley, Sweet Springs (1979); John C. Soucy, St. Charles (1979); Emanuel R. Comas, Manchester (1979); William D. Bradshaw, Columbia (1979); Robert M. Mathews, Kansas City (1979).

Medical-Legal Affairs—Irving H. Clark, Kansas City, Chairman (1977); George P. Wilson, Columbia (1977); Vicente D. Deles, Crystal City (1977); Jerome I. Simon, St. Louis (1977); Joseph S. Cope, Lexington (1977); Richard O. Craig, St. Joseph (1978); Noel R. Weyerich, Chesterfield (1978); George L. Hawkins, Jr., St. Louis (1978); William R. McPhee, Kansas City (1978); Harold B. Rapp, Cape Girardeau (1978); Robert L. Willcoxon, Joplin (1979); Bernard Draper, Rolla (1979); William J. Medlicott, Kansas City (1979); Earl P. Holt, Jr., St. Louis (1979); Charles I. Ash, Springfield (1979).

Interspecialty Medicine—*Missouri State Surgical Society*, Cyril Costello, St. Louis, Chairman; *Missouri State Allergy Association*, Stanley L. Goldman, Kansas City; *Missouri Society of Anesthesiologists*, J. O. Alyea, Columbia; *Missouri Dermatologic Society*, Larry E. Millikan, Columbia; *Missouri Academy of Family Physicians*, Charles A. Worley, Sweet Springs; *Missouri Society of Internal Medicine*, Thomas W. Burns, Columbia; *Missouri OB-GYN Society*, John P. Ferguson, Springfield; *Missouri Ophthalmological Society*, Wilbur H. Lewin, St. Louis; *Missouri Orthopedic Association*, Robert E. Funsch, St. Louis; *Missouri Society of Pathologists, Inc.*, Henry C. Allen, St. Louis; *Missouri Chapter, American Academy of Pediatrics*, Don S. Overend, Springfield; *Physical Medicine & Rehabilitation*, Franz U. Steinberg, St. Louis; *Missouri Radiologic Society*, William H. McAlister, St. Louis; *Missouri Thoracic Society*, Daniel L. Scholzman, Kansas City; *Federation of Missouri Urologists*, Karl J. Kurtz, Kansas City; *Missouri Psychiatric Association*, Kenneth F. Struessel, Columbia; *Missouri Society of Neurosurgeons*, C. Keith Whittaker, Kansas City; *Missouri Chapter, American College of Surgeons*, G. Lynn Krause, Jr., St. Louis; *Missouri Ear, Nose and Throat Association*, John H. Gladney, St. Louis.

Councilor Districts and Counties in Each District



DISTRICT	COUNCILOR	COUNTIES
First	John N. Martin, M.D. (Chairman) St. Joseph	Andrew, Atchison, Buchanan, Caldwell, Carroll, Clay, Clinton, Daviess, De Kalb, Gentry, Grundy, Harrison, Holt, Linn, Livingston, Mercer, Nodaway, Platte and Worth
Second	J. Russell Comer, M.D. New London	Adair, Chariton, Clark, Knox, Lewis, Macon, Marion, Monroe, Pike, Putnam, Ralls, Randolph, Schuyler, Scotland, Shelby and Sullivan
Third	Donald R. Judd, M.D. St. Louis	St. Louis (City)
Fourth	Louis P. Hetlage, M.D. Troy	Franklin, Gasconade, Jefferson, Lincoln, St. Charles, St. Louis (County) and Warren
Fifth	H. Peter Ekern, M.D. Mexico	Audrain, Boone, Callaway, Camden,* Cole, Cooper, Howard, Miller, Moniteau, Montgomery, Morgan and Osage*
Sixth	John Torontow, M.D. Nevada	Bates, Benton, Cass, Cedar, Henry, Johnson, Lafayette, Pettis, Ray, St. Clair, Saline and Vernon
Seventh	Andrew McCanse, M.D. (Vice-Chairman) Kansas City	Jackson
Eighth	Walter A. German, Jr., M.D. Springfield	Barry, Barton, Christian, Dade, Dallas, Greene, Hickory, Jasper, Lawrence, McDonald, Newton, Polk, Stone, Taney and Webster
Ninth	Claude W. Cooper, M.D. Thayer	Crawford, Dent, Douglas, Howell, Laclede, Maries, Oregon, Ozark, Phelps, Pulaski, Shannon, Texas and Wright
Tenth	Eugene T. Hansbrough, M.D. Poplar Bluff	Bollinger, Butler, Cape Girardeau, Carter, Dunklin, Iron, Madison, Mississippi, New Madrid, Pemiscot, Perry, Reynolds, Ripley, St. Francois, Ste. Genevieve, Scott, Stoddard, Washington and Wayne

* Counties with no medical organization.

Component Societies in Affiliation With the Missouri State Medical Association

COUNTY	DISTRICT	PRESIDENT	ADDRESS	SECRETARY	ADDRESS
Andrew	1	Gilbert B. Kelley	Savannah	Warren C. Baker	Savannah
Audrain	5	Glen Kallenbach	Mexico	Mary Ellen Mullen	Mexico
Barton	8	Herbert M. Arnold	Lamar	Thomas W. Carroll	Lamar
Boone	5	Elizabeth James	Columbia	Larry E. Millikan	Columbia
Buchanan	1	G. Tyson Carpenter	St. Joseph	Carl K. Ness	St. Joseph
Butler-Wayne-Ripley-Carter	10	Ben Till	Poplar Bluff	Kirby Turner	Poplar Bluff
Callaway	5	James K. Ritterbusch	Fulton	Richard A. Osbourn	Fulton
Cape Girardeau	10	George E. Magaletta	Cape Girardeau	Paul C. Horn	Cape Girardeau
Chariton-Macon-Monroe-Randolph	2	Donald Eggleston	Macon	G. R. Hudson	Moberly
Clay	1	Donald A. Fakhoury	N. Kansas City	Jerry W. Cook	N. Kansas City
Clinton	1	P. T. Luckenbill	Plattsburg	J. H. Sweiger	Plattsburg
Cole	5	Harold Kanagawa	Jefferson City	Douglas Westhoff	Jefferson City
Cooper	5	Daikichi Hata	Boonville	E. T. Humphreys	Boonville
Dallas-Hickory-Polk-Dade	8	Evelyn Griffin	Buffalo	Monte Kahler	Bolivar
Dunklin	10	Oscar Isidoro	Kennett	Quinton Tarver	Kennett
Franklin-Gasconade-Warren	4	S. L. Farrell	Washington	John B. Crane	Washington
Grand River Medical Society (Caldwell-Carroll-Livingston-Grundy-Daviess-Harrison-Linn-Mercer-DeKalb)					
Greene	1	T. N. Cofer	Chillicothe	William L. Fair	Chillicothe
	8	David W. Hall	Rogersville	Alan H. Bailey	Springfield
Henry	6	Richard H. King	Clinton	Kenneth F. Scott, Jr.	Clinton
Howard	5			M. P. Leech	Fayette
Jackson	7	R. Donald Blim	Kansas City	Donald E. McIntosh	Kansas City
Jasper	8	Joe L. Longenecker	Joplin	M. A. S. Hallaba	Joplin
Jefferson	4	W. Thomas Judge	Crystal City	Vicente D. Deles	Crystal City
Johnson	6	T. Reed Maxson	Warrensburg	A. V. Sicut	Warrensburg
Lafayette-Ray	6	Robert R. Pavlu	Waverly	Catherine O. Boydston	Odessa
Lewis-Clark-Scotland	2			Landis Y. Davis	Canton
Marion-Ralls-Shelby	2	Robert W. Buben	Hannibal	Federico N. Florendo, Jr.	Hannibal
Mid-Missouri County Medical Society (Phelps-Crawford-Dent-Pulaski-Maries-Laclede)					
Miller	9	Frank Elders	Cuba	Bernard Draper	Rolla
Mineral Area Medical Society (St. Francois-Iron-Madison-Washington-Reynolds-Bollinger)	10	Robert C. Hoyer	Farmington	C. H. Appleberry	Rivermines
Moniteau	5	Kenyon S. Latham	California	L. M. Gallagher	California
Montgomery	5			S. J. Byland	Wellsville
Morgan	5	J. Loren Washburn	Versailles	C. Robert Hall	Versailles
North Central Counties Medical Society (Adair-Schuyler-Knox-Sullivan-Putnam)					
	2	Francis Tarvydas	Edina	Milton T. English	Kirksville
Northwest Missouri Medical Society (Nodaway-Holt-Atchison-Centry-Worth)					
	1	Frank B. Matteson	Grant City	Pat Harr	Maryville
Ozarks Medical Society (Barry-Lawrence-Stone-Christian-Taney-Newton-McDonald)					
	8	Francisco R. Esparrago, Jr.	Monett	Andres Apostol	Monett
Pemiscot	10	James Grable	Portageville	Clarence W. McKaskle	Caruthersville
Perry-Ste. Genevieve	10	Martin L. Key	Ste. Genevieve	Joseph F. Lutkewitte	Ste. Genevieve
Pettis	6			James R. Farkas	Sedalia
Pike	2	Charles H. Lewellen	Louisiana	Mathew L. Nichols	Louisiana
Platte	1			S. Lloyd Allen	Kansas City
St. Charles-Lincoln	4	James L. Carpenter	St. Charles	Keim L. Baird	St. Charles
St. Louis Medical Society	3	James M. Stokes	St. Louis	Leslie F. Bond	St. Louis
St. Louis County Medical Society	4	Robert B. Deitchman	St. Louis	Jack R. Eidelman	St. Louis
Saline	6	James A. Reid	Marshall	E. Lee McCorkle	Marshall
SEMO County Medical Society (Stoddard-New Madrid-Mississippi-Scott)					
	10	Fred H. Thornton	Sikeston	Daniel L. Rosenstein	Sikeston
South Central (Howell-Oregon-Texas-Wright-Douglas-Ozark)					
	9	C. Franklin Smith	Willow Springs	W. T. Morgan, Jr.	West Plains
Webster	8	R. J. Bareis	Marshfield	J. F. Patterson	Marshfield
West Central Missouri Medical Society (Bates-Cass-Cedar-St. Clair-Vernon)					
	6	Robert D. Henry	Harrisonville	R. John Torontow	Nevada

Guide to County Medical Societies

Following is a list of Missouri communities in which MSMA member-physicians are in active practice or reside. Name of the community is followed by the county in which it is located and the medical society to which physicians of that community normally would belong.

Town County Medical Society

A

Advance Stoddard SEMO
 Afton St. Louis*
 Albany Gentry Northwest Missouri
 Altenburg Perry Perry-Ste. Genevieve
 Appleton City St. Clair West Central
 Arnold Jefferson Jefferson
 Ashland Boone Boone
 Aurora Lawrence Ozarks
 Ava Douglas South Central

B

Ballwin St. Louis*
 Belton Cass West Central
 Berkeley St. Louis*
 Bethany Harrison Grand River
 Bloomfield Stoddard SEMO
 Blue Springs Jackson Jackson
 Bolivar Polk Dallas-Hickory-Polk-Dade
 Bonne Terre St. Francois Mineral Area
 Boonville Cooper Cooper
 Bourbon Crawford Mid-Missouri
 Bowling Green Pike Pike
 Branson Taney Ozarks
 Braymer Caldwell Grand River
 Brentwood St. Louis*
 Bridgeton St. Louis*
 Brookfield Linn Grand River
 Browning Linn Grand River
 Brunswick Chariton Chariton-Macon-Monroe-Randolph
 Buckner Jackson Jackson
 Buffalo Dallas Dallas-Hickory-Polk-Dade
 Butler Bates West Central

C

Cabool Texas South Central
 Cainesville Harrison Grand River
 California Moniteau Moniteau
 Camdenton Camden Camden
 Cameron Clinton Clinton
 Cape Girardeau Cape Girardeau Cape Girardeau
 Cardwell Dunklin Dunklin
 Carrollton Carroll Grand River
 Carthage Jasper Jasper
 Caruthersville Pemiscot Pemiscot
 Cassville Barry Ozarks
 Centralia Boone Boone
 Charleston Mississippi SEMO
 Chesterfield St. Louis*
 Chillicothe Livingston Grand River
 Clarksville Pike Pike
 Clayton St. Louis*
 Clinton Henry Henry
 Columbia Boone Boone
 Concordia Lafayette Lafayette-Ray
 Crane Stone Ozarks
 Creve Coeur St. Louis*
 Crystal City Jefferson Jefferson
 Cuba Crawford Mid-Missouri

D

Desloge St. Francois Mineral Area
 DeSoto Jefferson Jefferson
 Dexter Stoddard SEMO
 Doniphan Ripley Butler-Wayne-Ripley

E

East Prairie Mississippi SEMO
 Edina Knox North Central
 Eldon Miller Miller
 El Dorado Springs Cedar West Central
 Elsberry Lincoln St. Charles-Lincoln
 Everton Jackson Jackson
 Excelsior Springs Clay Clay

Town County Medical Society

F

Farmington St. Francois Mineral Area
 Fayette Howard Howard
 Fenton St. Louis*
 Ferguson St. Louis*
 Festus Jefferson Jefferson
 Flat River St. Francois Mineral Area
 Florissant St. Louis*
 Forsyth Taney Ozarks
 Fort Leonard Wood Pulaski Mid-Missouri
 Fredericktown Madison Mineral Area
 Frontenac St. Louis*
 Fulton Callaway Callaway

G

Gallatin Daviess Grand River
 Gashland Clay Clay
 Gerald Franklin Franklin-Gasconade-Warren
 Gideon New Madrid SEMO
 Gladden St. Louis*
 Glasgow Howard Howard
 Glendale St. Louis*
 Grandview Jackson Jackson
 Grant City Worth Northwest Missouri
 Gravois Mills Morgan Morgan
 Greenfield Dade Barton-Dade

H

Hamilton Caldwell Grand River
 Hannibal Marion Marion-Ralls-Shelby
 Harrisonville Cass West Central
 Hayti Pemiscot Pemiscot
 Herculaneum Jefferson Jefferson
 Hermann Gasconade Franklin-Gasconade-Warren
 Hickman Mills Jackson Jackson
 Higginsville Lafayette Lafayette-Ray
 Hillsboro Jefferson Jefferson
 Hornersville Dunklin Dunklin
 Houston Texas South Central
 Humansville Polk Dallas-Hickory-Polk-Dade
 Huntsville Randolph Chariton-Macon-Monroe-Randolph

I

Illmo Cape Girardeau Cape Girardeau
 Independence Jackson Jackson
 Ironton Iron Mineral Area

J

Jackson Cape Girardeau Cape Girardeau
 Jefferson Barracks St. Louis*
 Jefferson City Cole Cole
 Jennings St. Louis*
 Joplin Jasper Jasper

K

Kahoka Clark Lewis-Clark-Scotland
 Kansas City Jackson Jackson
 Kennett Dunklin Dunklin
 King City Gentry Northwest Missouri
 Kirksville Adair North Central
 Kirkwood St. Louis*
 Knob Noster Johnson Johnson
 Knox City Knox North Central
 Koch St. Louis*

L

Ladue St. Louis*
 Lamar Barton Barton
 Lawson Ray Lafayette-Ray
 Leawood (Kan.) Jackson
 Leadwood St. Francois Mineral Area

* Member may belong to St. Louis County Medical Society or St. Louis Medical Society.

Town	County	Medical Society
Lebanon	Laclede	Mid-Missouri
Lee's Summit	Jackson	Jackson
Lemay	St. Louis*	
Lexington	Lafayette	Lafayette-Ray
Liberty	Clay	Clay
Linn	Osage	Cole
Lockwood	Dade	Dallas-Hickory-Polk-Dade
Louisiana	Pike	Pike

M

Macon	Macon	Chariton-Macon-Monroe-Randolph
Malden	Dunklin	Dunklin
Maplewood	St. Louis*	
Marceline	Linn	Grand River
Marshall	Saline	Saline
Marshfield	Webster	Webster
Martin City	Jackson	Jackson
Maryville	Nodaway	Northwest Missouri
Memphis	Scotland	Lewis-Clark-Scotland
Mexico	Audrain	Audrain
Milan	Sullivan	North Central
Moberly	Randolph	Chariton-Macon-Monroe-Randolph
Monett	Barry	Ozarks
Montgomery City	Montgomery	Montgomery
Morehouse	New Madrid	SEMO
Mound City	Holt	Northwest Missouri
Mountain Grove	Wright	South Central
Mountain View	Howell	South Central
Mount Vernon	Lawrence	Ozarks

N

Neosho	Newton	Ozarks
Nevada	Vernon	West Central
New Florence	Montgomery	Montgomery
New Haven	Franklin	Franklin-Gasconade-Warren
New London	Ralls	Marion-Ralls-Shelby
New Madrid	New Madrid	SEMO
Normandy	St. Louis*	
North Kansas City	Clay	Clay

O

Oak Grove	Jackson	Jackson
Odessa	Lafayette	Lafayette-Ray
O'Fallon	St. Charles	St. Charles-Lincoln
Olivette	St. Louis*	
Osceola	St. Clair	West Central
Overland	St. Louis*	
Owensville	Gasconade	Franklin-Gasconade-Warren
Ozark	Christian	Ozarks

P

Pacific	Franklin	Franklin-Gasconade-Warren
Palmyra	Marion	Marion-Ralls-Shelby
Paris	Monroe	Chariton-Macon-Monroe-Randolph
Parkville	Platte	Platte
Parma	New Madrid	SEMO
Pattonsburg	Daviess	Grand River
Pattonville	St. Louis*	
Perryville	Perry	Perry-Ste. Genevieve
Piedmont	Wayne	Butler-Wayne-Ripley
Pilot Knob	Iron	Mineral Area
Pine Lawn	St. Louis*	
Platte City	Platte	Platte
Plattsburg	Clinton	Clinton
Pleasant Hill	Cass	West Central
Poplar Bluff	Butler	Butler-Wayne-Ripley
Portageville	New Madrid	SEMO
Potosi	Washington	Mineral Area
Prairie Village (Kan.)		Jackson
Princeton	Mercer	Grand River

R

Raytown	Jackson	Jackson
Reeds Spring	Stone	Ozarks

Town	County	Medical Society
Republic	Greene	Greene
Rich Hill	Bates	West Central
Richmond	Ray	Lafayette-Ray
Richmond Heights	St. Louis*	
Rivermines	St. Francois	Mineral Area
Robertson	St. Louis*	
Rock Hill	St. Louis*	
Rockport	Atchison	Northwest Missouri
Rogersville	Webster	Webster
Rolla	Phelps	Mid-Missouri

S

St. Ann	St. Louis*	
St. Charles	St. Charles	St. Charles-Lincoln
St. Clair	Franklin	Franklin-Gasconade-Warren
Ste. Genevieve	Ste. Genevieve	Perry-Ste. Genevieve
St. James	Phelps	Mid-Missouri
St. Joseph	Buchanan	Buchanan
St. Louis City *		
Salem	Dent	Mid-Missouri
Salisbury	Chariton	Chariton-Marion-Monroe-Randolph
Sappington	St. Louis*	
Sarcozie	Jasper	Jasper
Savannah	Andrew	Andrew
Sedalia	Pettis	Pettis
Shawnee Mission (Kan.)		Jackson
Shelbina	Shelby	Marion-Ralls-Shelby
Shelbyville	Shelby	Marion-Ralls-Shelby
Shrewsbury	St. Louis*	
Sikeston	Scott	SEMO
Slater	Saline	Saline
Smithton	Pettis	Pettis
Smithville	Clay	Clay
Springfield	Greene	Greene
Stanberry	Gentry	Northwest Missouri
Steele	Pemiscot	Pemiscot
Steelville	Crawford	Mid-Missouri
Stockton	Cedar	West Central
Strafford	Greene	Greene
Sullivan	Franklin	Franklin-Gasconade-Warren
Sweet Springs	Saline	Saline

T

Tarkio	Atchison	Northwest Missouri
Thayer	Oregon	South Central
Trenton	Grundy	Grand River
Troy	Lincoln	St. Charles-Lincoln

U

Union	Franklin	Franklin-Gasconade-Warren
University City	St. Louis*	

V

Valley Park	St. Louis*	
Vandalia	Audrain	Audrain
Versailles	Morgan	Morgan
Vienna	Maries	Cole

W

Warrensburg	Johnson	Johnson
Warrenton	Warren	Franklin-Gasconade-Warren
Warsaw	Benton	Benton
Washington	Franklin	Franklin-Gasconade-Warren
Waverly	Lafayette	Lafayette-Ray
Waynesville	Pulaski	Mid-Missouri
Webb City	Jasper	Jasper
Webster Groves	St. Louis*	
Wellsville	Montgomery	Montgomery
Wentzville	St. Charles	St. Charles-Lincoln
West Plains	Howell	South Central
Willard	Greene	Greene
Willow Springs	Howell	South Central
Windsor	Henry	Henry
Winona	Shannon	Carter-Shannon
Winston	Daviess	Grand River

* Member may belong to St. Louis County Medical Society or St. Louis Medical Society.

Alphabetical Roster of Members

(See Instructions on Page 383)

A

Aach, Richard D., St. Louis
 Aaron, George A., Independence
 Abadir, Rushdy, Columbia
 Abaqueta, Gamaliel P., Kansas City
 Abdou, Nancy L., Kansas City
 Abel, Charles C., St. Louis
 Abel, Oliver, III, St. Louis
 Abele, Wm. A., Boonville
 Abelardo, Miguel L., St. Louis
 Abell, Walter E., St. Louis
 Abella, Bienvenido Z., Kansas City
 Abend, Melvin N., Kansas City
 Abercrombie, Keith J., Kansas City
 Abinoja, Conrado B., St. Louis
 Abodeely, Daniel, St. Louis
 Abrams, Bernard M., Kansas City
 Abrams, Morris, St. Louis
 Abramson, Charles L., St. Louis
 Achar, Lakkanagam G. P., Kansas City
 Acker, Harry L., St. Louis
 Ackerman, Lauren V., Long Island, N. Y.
 (Member St. Louis Medical Society)
 Acuff, R. Phillip, St. Joseph
 Adams, Harold D., Columbia
 Adams, Howard D., Liberty
 Adams, Robert B., Jr., Joplin
 Adelman, Arthur, Kansas City
 Adelman, Eugene, St. Louis
 Adeyemi-Doro, Henry, St. Louis
 Adibi, Fereydoon, Poplar Bluff
 Adler, Benard C., St. Louis
 Adler, Federico, Kansas City
 Afuwape, Emmanuel, St. Louis
 Agasino, Armela R., St. Louis
 Agasino, Gaudencio, Sullivan (Member St. Louis Medical Society)
 Agee, Loren G., Kansas City
 Agress, Harry, St. Louis
 Aguilera, Trinidad J. A., Moberly
 Aguinaldo, Jaime A., St. Louis
 Ahad, Abdul, St. Joseph
 Ahadi, Abd Ul Ahad, St. Louis
 Ahern, Archibald M., St. Louis
 Ahlering, George H., St. Louis
 Ahlvin, Robert C., Sikeston
 Ahmad, Bashir, St. Louis
 Ahuja, A. L., St. Louis
 Aitken, Louis F., St. Louis
 Ajans, Z. A., Mexico
 Aker, Umit, St. Louis
 Aks, Daniel, Kansas City
 Akyol, Salim, St. Louis
 Albano, Benjamin L., Crystal City
 Albera, Victor H., St. Louis
 Alberg, Marvin R., Kansas City
 Albert, Ingrid, St. Louis
 Alcantia, Elpidio Y., Springfield
 Alderman, Donald P., Shawnee Mission, Kan. (Member Jackson County Medical Society)
 Alderman, Thomas F., Kansas City
 Alegre, Jorge M., St. Louis
 Aleksander, Bernardo, St. Louis
 Alex, Morris, St. Louis
 Alexander, Frazier D., St. Louis
 Alexander, George K., St. Louis
 Allain, James J., North Kansas City
 Allan, James E., Jefferson City
 Allan, James R., Liberty
 Allbee, Roger H., Crystal City
 Allcorn, Donald J., Columbia
 Allebach, Hobart K., Kansas City
 Allen, David O., Joplin
 Allen, E. Warren, Carrollton
 Allen, Henry C., St. Louis
 Allen, Hollis N., St. Louis
 Allen, James H., St. Louis
 Allen, Jerry H., Springfield
 Allen, Joseph E., Columbia
 Allen, Louis A., N. Kansas City
 Allen, Melvin A., St. Louis
 Allen, Robert E., Kansas City
 Allen, Robert W., Columbia
 Allen, S. Lloyd, Kansas City
 Allen, Stephen C., Springfield
 Allen, Willard M., Baltimore, Md. (Member St. Louis Medical Society)
 Allen, William C., Columbia
 Allen, William E., Jr., St. Louis
 Allen, William H., Nevada
 Allison, James B., Springfield

* Doctor of Osteopathy.

Almiron, Osias A., Maryland Heights
 Almond, Carl H., Columbia
 Alonso, Jose Mario V., Jr., St. Louis
 Alonso, William A., St. Louis
 Alonso-Yague, P., St. Louis
 Alpern, Louis M., St. Louis
 Alsop, Webb S., Jr., Kansas City
 Althaus, Carl Jacob, Ballwin
 Altheide, Harvey E., Ladue
 Altheide, J. Paul, St. Louis
 Altman, Marvin P., St. Charles
 Altomare, Edward P., Kansas City
 Alul, Michael, St. Charles
 Alvarez, Luis L., St. Louis
 Alvarez, Ulises C., Maryland Heights
 Alvis, Bennett Y., St. Louis
 Alvis, Edmund B., St. Louis
 Aleya, J. O., Columbia
 Amado-Ledo, David E., St. Louis
 Ames, William H., St. Joseph
 Amin, Avora M., St. Louis
 Amin, Navinkumar J., St. Louis
 Amjad, Mohammad T., Ballwin
 Ammatelli, Francis J., Kansas City
 Amoury, Raymond A., Kansas City
 Analkat, H. N., St. Louis
 Ancheta, Apolinario A., Springfield
 Anderson, Charles B., St. Louis
 Anderson, Ivan A., Columbia
 Anderson, John M., St. Louis
 Anderson, Paul B., Neosho
 Anderson, Philip C., Columbia
 Anderson, Raymond B., Kansas City
 Anderson, Thomas R., Columbia
 Andressen, Dimil F., Rolla
 Andres, Edward H., St. Joseph
 Andrews, Berneil W., N. Kansas City
 (Member Clay County Medical Society)
 Andrus, Bailey C., Kansas City
 Angelillo, John C., Durham, N. C. (Member St. Louis Medical Society)
 Angelo, Thomas L., Manchester
 Anglo, Luis B., St. Louis
 Anis, Onssy H., Columbia
 Anslinger, David I., St. Louis
 Anstey, George, St. Ann
 Anthony, Dallas, Springfield
 Anthony, Elwyn J., St. Louis
 Antoniou, Christos, St. Ann
 Apostol, Andres G., Monett
 Appleberry, Charles H., Rivermines
 Aquino, Philip J., Caruthersville
 Arbab, Ali A., Kansas City
 Archer, Carol R., St. Louis
 Ardestani, Hooshang A., Kansas City
 Arenberg, Irving K., St. Louis
 Arenos, Proceso T., Jr., Manchester
 Arias, Fernando, St. Louis
 Arms, Arnold V., Kansas City
 Arms, Richard A., Kansas City
 Armstrong, Jay H., Shawnee Mission Kan. (Member Clay County Medical Society)
 Arneson, Axel N., St. Louis
 Arney, William G., St. Louis
 Arnold, Herbert M., Lamar
 Arnold, John D., Kansas City
 Arnold, Kenneth J., St. Louis
 Arnold, Richard C., Columbia
 Aronberg, Jerome, St. Louis
 Aronson, Abraham, St. Louis
 Arnot, John P., St. Louis
 Arribas, Aurora I., Blue Springs
 Arribas, Neva P., St. Louis
 Arribas, Romeo F., Blue Springs
 Arst, Herbert E., Kansas City
 (Member Clay County Medical Society)
 Aschman, Theodore H., Kansas City
 Asel, Norman D., Columbia
 Asghar, Mohammad, St. Louis
 Ash, Charles J., Springfield
 Ashby, Jennifer D., Kansas City
 Ashcraft, Keith W., Kansas City
 Asher, A. Graham, Kansas City
 Ashley, Hugh V., Cape Girardeau
 Ashley, Thomas F., Springfield
 Askew, John H., Sikeston
 Asnani, Mithlesh G., Kansas City
 Atkinson, Thomas E., Jr., Springfield
 Atwell, Floyd C., Kansas City
 Auer, Arthur L., St. Louis
 Auer, Edward T., St. Louis
 Aufderheide, G. Russell, St. Louis
 Auguste, Jean Meledain, St. Louis
 Augustin, Cesar, St. Louis
 Aulenbacher, Carl E., Washington

Auner, Cecil R., Springfield
 Averill, Keith H., Kansas City
 Avery, Willard B., Boonville
 Avila, Estrella Z., Hannibal
 Avila, Patricio C., Hannibal
 Avioli, Louis V., St. Louis
 Ayata, Sedat M., St. Louis
 Aykent, Yavuz, St. Louis
 Aylward, Howard J., St. Louis
 Aylward, Howard J., Jr., Columbia
 Ayvazian, Vatche H., St. Louis
 Azan, Kenneth, Sedalia
 Azuma, Nobutaka, St. Louis

B

Babka, Joseph J., St. Louis
 Babu, Sylvia S., Kansas City
 Bach, Lysle M., Hannibal
 Back, Donald K., Springfield
 Backer, Matthias H., Jr., St. Louis
 Badger, Virginia M., St. Louis
 Baer, Alvin J., Kansas City
 Bagby, James W., Clayton
 Bagwe, Lata R., St. Louis
 Bagwe, Ranjit M., St. Charles
 Bahn, Charles F., Cape Girardeau
 Bai, Sangzin, Festus
 Baik, Kil Young, Waverly
 Bailey, Alan H., Springfield
 Bailey, Drennan, St. Louis
 Bailey, William H., St. Louis
 Baird, Keim L., St. Charles
 Bajaj, Arun R., Poplar Bluff
 Baker, A. Sherwood, Columbia
 Baker, Donald L., Union
 Baker, James M., Columbia
 Baker, Josephine D., Moberly
 Baker, Philip J., Independence
 Baker, Warren C., Savannah
 Baldwin, Richard, Springfield
 Baldwin, Richard, Jr., St. Louis
 Baldwin, Theodore R., Excelsior Springs
 Bales, Eugene L., Carrollton
 Balhuizen, John, Kansas City
 Ballal, H. S., St. Louis
 Ballard, V. Bryce, Kansas City
 Ballinger, Walter F., II, St. Louis
 Balster, Vernon H., St. Louis
 Bamshad, Jerry, Florissant
 Bandle, Donald F., St. Louis
 Banez, Colita R., St. Louis
 Banjastikul, Chusak, St. Louis
 Bankuti, Ferenc, Kansas City
 Banton, M. Roman, St. Louis
 Banton, Thomas J., St. Louis
 Banton, William C., St. Louis
 Barbee, Charles W., Columbia
 Barbero, Giulio J., Columbia
 Barbour, Marvin R., Poplar Bluff
 Bardsley, John L., St. Louis
 Bare, Chester L., Jr., Kansas City
 Bare, Edward F., Tarkio
 Bareis, Robert J., Marshfield
 Barelli, Pat A., Kansas City
 Barker, Edward T., St. Louis
 Barloon, James H., Kansas City
 Barnard, John L., Jr., Kansas City
 Barner, Hendrick, St. Louis
 Barnes, Asa, Jr., Columbia
 Barnes, Seth S., Cape Girardeau
 Barnett, Charles H., Bolivar
 Barnett, Floyd A., Paris
 Barnett, Gordon P., Shawnee Mission, Kan. (Member Jackson County Medical Society)
 Barnhill, Floyd R., Springfield
 Barone, Paul L., Nevada
 Barr, Glenn A., Kansas City
 Barragan, Hector, Ballwin
 Barrett, Scott R., St. Louis
 Barrow, Jack, St. Louis
 Barry, Gerald W., Kansas City
 Barry, William B., Kansas City
 Bartlett, Robert W., St. Louis
 Bartley, Richard L., Springfield
 Bartnick, Mitchel L., De Soto (Member St. Louis Medical Society)
 Barton, Leslie L., St. Louis
 Barton, Robert W., St. Louis
 Bartulica, Nicholas, St. Joseph
 Basantz, Fernando V., Kansas City
 Baska, R. E., Kansas City
 Bass, Walter R., Kansas City

- Bates, George C., N. Kansas City (Member Clay County Medical Society)
- Battner, Robert E., Kansas City
- Baue, Arthur E., New Haven, Conn. (Member St. Louis Medical Society)
- Bauer, Eugene A., St. Louis
- Bauer, Harold A., Springfield (Member Dallas-Hickory-Polk-Deade County Medical Society)
- Bauer, John D., St. Louis
- Bauer, Joseph A., St. Louis
- Bauer, Lafe W., Prairie Village, Kan. (Member Jackson County Medical Society)
- Bauer, Maria, Granite City, Ill. (Member St. Louis Medical Society)
- Bauer, Otto, Granite City, Ill. (Member St. Louis Medical Society)
- Bauer, Robert A., Florissant
- Baula, Armando G., St. Louis
- Baum, Frank E., Kansas City
- Bauman, Henry C., Maryville
- Baumann, A. R., Steelville
- Baumgarten, Walter, Jr., St. Louis
- Bauschard, Frederick, St. Louis
- Bautista, Rogelio L., Moberly
- Bay, Merrill R., Blue Springs
- Bayr, William L., Kansas City
- Bayrakdar, Admad K., St. Louis
- Bealer, Louis A., Lebanon
- Beall, M. Scott, Kansas City
- Beard, William J., Lenexa, Kan. (Member Jackson County Medical Society)
- Beare, J. Byron, St. Louis
- Beasley, L. Kenneth, Port Salerno, Fla. (Member St. Louis County Medical Society)
- Beato, David L., St. Louis
- Beatty, Arch J., Kansas City
- Beatty, Eugene C., Kansas City
- Beatty, Nina D., Kansas City
- Beaty, William R., St. Louis
- Beauchamp, Gary D., Kansas City
- Beck, Calvin E., Kansas City
- Beck, Marcus R., Columbia
- Beck, Paul M., St. Joseph
- Becker, Bernard, St. Louis
- Becker, Edward J., St. Louis
- Becker, Richard R., Kansas City
- Becker, Robert L., Creve Coeur
- Becker, Rolfe A., Kansas City
- Becker, Stanley C., St. Louis
- Beckloff, Gerald L., Kansas City
- Beckman, Donald E., St. Louis
- Beckman, Fred N., Columbia
- Beeks, John W., Kansas City (Member Clay County Medical Society)
- Behbahani, Parviz M., St. Louis
- Beheler, Edward M., St. Joseph
- Behrends, Steven H., Kansas City
- Behrens, Donald T., St. Louis
- Behrens, Gerald L., St. Louis
- Beidle, Raymond J., St. Ann
- Beisner, Donald H., Springfield
- Belancourt, Dunet F., St. Louis
- Belden, Edgar A., Jefferson City
- Belew, Joe E., St. Louis
- Bell, Hubert H., Kansas City
- Bell, Martin J., St. Louis
- Bell, Robert M., Hannibal (Member St. Louis Medical Society)
- Bell, William F., Lee's Summit
- Benage, Clarence M., Florissant
- Bennett, James D., Kansas City
- Bennett, John B., St. Louis
- Bennett, Kenneth J., St. Louis
- Bennoch, Shane L., Springfield
- Benoist, Walter F., St. Ann
- Benoit, Hector Wright, Jr., Kansas City
- Benson, John F., St. Louis
- Benson, Larry E., Kansas City (Member Clay County Medical Society)
- Benson, Ronald G., Springfield
- Benson, Scott C., St. Joseph
- Benson, William F., Kansas City
- Bentginganan, Victor D., Fredericktown
- Bentlage, Charles H., Joplin
- Bentley, John D., Springfield
- Berard, Louis N., St. Louis
- Berenson, Sheldon E., Kansas City
- Berg, Edward F., Ladue
- Berg, Leonard, St. Louis
- Berg, Ralph, St. Louis
- Berger, Edward J., St. Louis
- Bergman, Hugo F., St. Louis
- Bergmann, Dwayne, St. Louis
- Bergmann, John F., St. Louis
- Bergmann, Martin, St. Louis
- Bergmann, Victor H., Kansas City
- Bergner, Grace E., St. Louis
- Berland, Harry I., St. Louis
- Berlin, Roger, Kansas City
- Berman, William, St. Louis
- Bernabe, Florinio H., Manchester
- Bernabe, Ofelia M., Manchester
- Bernard, J. W., Caruthersville
- Bernsdn, Gerard H., Rock Hill
- Berney, Francis J., St. Joseph
- Berni, Anthony A., St. Louis
- Bernreiter, Michael, Kansas City
- Bernstein, Aaron M., Clayton
- Berry, John W., St. Louis
- Berry, Maxwell G., Kansas City
- Berry, Paul T., Springfield
- Berwald, David M., Bridgeton
- Berwald, Irwin I., St. Louis
- Best, Robert, Shawnee Mission, Kan. (Member Lafayette-Ray County Medical Society)
- Bettonville, Paul J., Jr., St. Louis
- Betz, Richard J., Neosho
- Betz, Robert F., Neosho
- Bhatara, Vinod S., Columbus, Ohio (Member St. Louis Medical Society)
- Bhend, David P., Joplin
- Bickel, Vern T., Lamar
- Bickley, James E., Kansas City
- Biddy, Ralph L., St. Louis
- Bidwell, Robert E. G., Kansas City
- Biery, Richard M., Kansas City
- Biggs, Alfred D., Jr., Kansas City
- Biggs, Fred J., Jr., Poplar Bluff
- Biggs, Harry L., Kansas City
- Bikales, Victor W., Kansas City
- Bilchik, Ronald C., St. Louis
- Bills, Marvin L., Kansas City
- Billy, Lawrence J., St. Louis
- Bilsky, Nathan, St. Louis
- Bindbeutel, Donald A., St. Louis
- Binder, Morton A., St. Louis
- Bircher, John L., St. Louis
- Bird, H. Waldo, St. Louis
- Bird, William F., Joplin
- Birenbaum, Aaron, St. Louis
- Birge, Clifford A., St. Louis
- Birser, Frank H., Joplin
- Bishop, Marion D., Florissant
- Bishop, Mary M., San Francisco, Calif. (Member St. Louis Medical Society)
- Bisno, Daniel, St. Louis
- Bizek, Joseph L., Aurora
- Black, Don A., Kansas City
- Black, Eugene C., Shawnee Mission, Kan. (Member Jackson County Medical Society)
- Black, Joseph, St. Louis
- Black, Samuel P. W., Columbia
- Black, Thomas C., Jr., Kansas City
- Blackman, Nathan, Kirkwood
- Blackman, Patricia A., St. Louis
- Blackmore, Thomas A., Windsor
- Blackwell, Charles R., Maryland Heights
- Blackwell, Charles W., Columbia
- Blades, Ross D., Springfield
- Bladow, Terrence C., Joplin
- Blair, John D., St. Louis
- Blair, Olga M., St. Louis
- Blair, Vilray P., Jr., St. Louis
- Blalock, Robert W., Marshall
- Blank, Michael K., De Soto
- Blankenship, Dale M., Cape Girardeau
- Blankenship, George W., Neosho
- Blanton, J. C., Sikeston
- Blath, Richard A., St. Louis
- Bleich, Nadya K., St. Louis
- Bleich, Virgil R., St. Louis
- Blim, Richard D., Kansas City
- Block, Arnold S., St. Louis
- Block, J. E., Sedalia
- Blount, Lee, Jr., St. Louis
- Blythe, James, St. Louis
- Boc, Inocencio M., St. Louis
- Bockelman, Clifford H., Brentwood
- Boedeker, Roy V., St. Louis
- Boger, James W., Sedalia
- Bohigian, George, St. Louis
- Bohling, Corey A., St. Louis
- Bohnsack, Ralph W., Brookfield
- Boldizar, Albert G., St. Louis
- Boldt, Thomas H., Bridgeton
- Boles, C. Read, Clayton
- Bolinske, Robert E., Creve Coeur
- Bolozos, George D., St. Louis
- Bolton, Robert L., Ballwin
- Bond, Leslie F., St. Louis
- Bondurant, Bryce II., St. Louis
- Bonebrake, M. D., Springfield
- Bonfanti, Albert L., St. Louis
- Bonifacio, Andres S., Crystal City
- Boniuk, Isaac, St. Louis
- Bonney, Samuel C., Washington
- Bonsanti, Robert L., Bridgeton
- Boone, Daniel C., Kansas City
- Boone, Martin H., Jr., Springfield
- Boonkham, C., Bridgeton
- Boonschaft, Benje, St. Louis
- Boonyasai, Boonfu, Pilot Knob
- Booth, William V., Dexter
- Bopp, Jon Ronald, Joplin
- Bordy, Marvin D., Kansas City
- Borenstine, Joseph, Kansas City
- Borja, Egbert, Springfield
- Borowsky, Benjamin A., St. Louis
- Borromeo, Carlos J., Hannibal
- Borsuk, Gregory M., Kansas City
- Bortnick, Arthur R., St. Louis
- Bortnick, Eugene, Kansas City
- Botwin, Arnold E., Kansas City
- Bourgeois, Curtis, Rochepoint
- Bourjolly, Wilson, St. Louis
- Bourke, Thomas E., Bridgeton
- Boveri, Joseph C., St. Louis
- Bowden, Edward H., Richmond Heights
- Bowe, Edwin Earl, Jefferson City
- Bowen, Stephen F., Jr., St. Louis
- Bowerman, Harold H., St. Louis
- Bowers, James E., Kirkwood
- Bowersox, Warren A., Pacific (Member St. Louis Medical Society)
- Bowles, G. Robert, St. Louis
- Bowles, Richard P., Liberty
- Bowles, William T., St. Louis
- Bowman, Melvin C., Neosho
- Bowman, William K., Cape Girardeau
- Bowser, John F., Kansas City
- Boyersky, Saul, St. Louis
- Boyce, John Milton, Columbia (Member Audrain County Medical Society)
- Boyd, Arthur M., St. Louis
- Boyd, George K., Kansas City
- Boydston, Catherine, Odessa
- Boydston, W. Wayne, Odessa
- Boyer, Philip A., Jr., Lee's Summit
- Boylan, Peter C., Kansas City
- Bozzo, Raymond J., Washington
- Braby, Howard H., Independence
- Bradford, John F., Kansas City
- Bradley, Richard V., St. Louis
- Bradley, William B., Jefferson City
- Bradley, William W., Centralia
- Bradshaw, W. D., Columbia
- Brady, Harry R., St. Louis
- Brady, Hugh S., Concordia
- Brahmacupta, Nathana, Excelsior Springs
- Brams, Jack B., Kansas City
- Brancato, Donald H., Florissant
- Brand, Earl L., Webster Groves
- Brandon, Frederick M., Joplin
- Brangle, Robert W., St. Louis
- Braufman, Harvey S., St. Louis
- Braverman, Abe E., Kansas City
- Braverman, Elliot M., Sedalia
- Bravo, Cesar A., Kansas City
- Brazos, John C., Smithton
- Bregant, Robert E., Jefferson City
- Bremer, Rita, St. Charles
- Bremser, Harry L., St. Louis
- Brennan, Daniel J., St. Louis
- Brennan, George A., St. Louis
- Brennan, Raymond J., Chillicothe
- Brennan, Robert A., St. Louis
- Brennan, Robert V., St. Louis
- Brenner, Paul A., Owensville
- Brent, Lanny R., Springfield
- Brereton, Robert L., Kirkwood
- Brian, William J., Springfield
- Brick, Jeffrey M., Kansas City
- Bricker, Eugene M., Clarksville (Member St. Louis Medical Society)
- Brielmaier, Charles R., St. Louis
- Brigham, D. W., St. Louis
- Brian, Pacelli E., St. Louis
- Briscoe, John R., St. Louis
- Bristow, Robert B., St. Joseph
- Brizio-Molteni, Loredana, N. Kansas City (Member Clay County Medical Society)
- Broadbush, Loren, Springfield
- Brodeur, Armand E., St. Louis
- Brody, Arnold C., St. Louis
- Bronson, Shael S., St. Louis
- Brookes, Robert D., St. Louis
- Brookreson, Alton D., Poplar Bluff
- Brookreson, Alton F., Poplar Bluff
- Brooks, John E., Springfield
- Brother, George M., Clearwater, Fla. (Member St. Louis County Medical Society)
- Brown, Coronwy O., St. Louis
- Brown, Coronwy O., Jr., St. Louis
- Brower, Clyde L., Independence
- Brown, Adrian J., Kansas City
- Brown, Daniel W., San Diego, Calif. (Member St. Louis Medical Society)
- Brown, David W., Springfield

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Brown, E. Eugene, St. Louis
Brown, Elwyn S., Kansas City
Brown, Frederick B., Aurora
Brown, Irwin S., Kansas City
Brown, James M., St. Louis
Brown, James T., Springfield
Brown, John J., Fulton
Brown, Katherine S., Fulton
Brown, Menzie H., Kansas City
Brown, Richard J. C., Florissant (Member St. Charles-Lincoln County Medical Society)
Brown, Robert S., Kansas City
Brown, Seymour, Chesterfield
Brown, Violeta O., Kansas City
Brownberger, Robert H., Appleton City
Broyles, Watkins A., Bethany
Brubaker, Leonard L., Columbia
Bruce, Helen L., St. Louis
Bruce, Leo A., Sikeston
Bruce, Robert M., St. Louis
Brugger, Thomas, Cleveland, Ohio (Member St. Louis Medical Society)
Brukardt, Diane, Columbia
Brumm, Lawrence W., Kansas City
Bruner, Claude R., Camdenton (Member Boone County Medical Society)
Bruner, Robert E., Kansas City
Bruns, Kenneth, St. Louis
Brust, Carl H., Shawnee Mission, Kan. (Member Jackson County Medical Society)
Bryan, James H., Clayton
Bryan, William H., Jr., Kansas City
Bryan, William T. K., St. Louis
Bryant, Sydney L., St. Joseph
Bryant, T. J., Kansas City
Buben, Robert W., Hannibal
Buchanan, Barbara N., Kansas City
Buckner, Robert C., Kansas City
Bucy, James G., St. Louis
Budd, John J., Jr., St. Louis
Budke, Harold A., Kansas City
Buehler, Carl T., Jr., Eldon
Buettner, John B., St. Louis
Buhler, Victor B., Kansas City
Buie, Bruce R., Kansas City
Bukstein, Michael J., Hannibal
Bumgarner, James E., Columbia
Bumgarner, Roger W., Columbia
Buntharungroj, Tasanaporn, Kansas City
Bunting, Williston P., Kansas City
Burch, John E., Joplin
Burcham, Tom R., Jr., Farmington
Burd, Ronald M., St. Louis
Burdge, Robert E., St. Louis
Burford, Edwin K., Jr., Cape Girardeau
Burford, Thomas H., St. Louis
Burgess, Dean, St. Louis
Burk, E. K., Kansas City
Burke, Robert J., St. Louis
Burkey, Jordan W., Springfield
Burkhart, Edward F., St. Louis
Burleigh, Bruce W., Joplin
Burmeister, R. William, St. Louis
Burns, Francis J., St. Louis
Burns, Francis R., Hannibal
Burns, Thomas W., Columbia
Burnside, Charles R., Kirkwood
Burr, Donald C., Nashville, Ill. (Member St. Louis Medical Society)
Burrows, Stephen D., St. Louis
Burry, Virgil F., Kansas City
Burst, Donald O., St. Louis
Burstein, Robert, St. Louis
Burton, Dale F., Hannibal
Busby, William E., Jefferson City
Busch, Anthony K., St. Louis
Busiek, Erwin F., Springfield
Busiek, Paul J., Springfield
Busiek, Urban J., Springfield
Busse, Paul, St. Louis
Bussmann, Donald W., St. Louis
Bussmann, Donald W., Jr., St. Louis
Butcher, Harvey R., Jr., St. Louis
Butcher, Robert W., Kansas City
Butler, E. F., St. Joseph
Butler, Patrick L., Diamond
Butsch, Richard H., Ballwin
Butt, James H., Columbia
Butterworth, Nelson S., Kansas City
Butts, James D., Rolla
Byer, John A., Columbia
Byland, Benjamin F., Maryville
Byland, Samuel J., Wellsville
Bynum, William R., Columbia
Byrne, Paul A., St. Louis
Byrum, Fritz A., Ballwin

C

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Cabrera, Tomas V., St. Peters
Caciolo, Carlo, St. Louis
Cacioppo, Joseph E., St. Louis
Cadice, John B., Florissant
Cadiz-Rojales, Adoricion, St. Louis
Caffrey, Raymond J., Kansas City
Cain, Alvin R., Lamar
Cain, Charles F., Caruthersville
Cajili, Antonio T., St. Louis
Caldwell, Fred, Poplar Bluff
Caldwell, John K., Kansas City
Callaghan, Gerard M., St. Louis
Callahan, Donald E., St. Louis
Callahan, Joseph D., St. Louis
Callaway, Guy D., Jr., Springfield
Callen, Kenneth E., Columbia
Callihan, Charles F., West Plains
Callman, George, St. Joseph
Calodney, Martin M., St. Louis
Calovich, Emery R., Kansas City
*Calvin, Glen, Union
Camacho, Homero, Overland Park, Kan. (Member Jackson County Medical Society)
Camel, H. Marvin, St. Louis
Camp, Richard V., Jr., Campbell
Campbell, A. J., Sedalia
Campbell, Cecil S., St. Louis
Campbell, Edward D., Cape Girardeau
Campbell, Frederick B., Kansas City
Campbell, James E., Macon
Campbell, James W., Advance
Campbell, John G., Kansas City
Campos, Antonio, St. Louis
Campos, Francisco J., St. Louis
Canaan, Samuel A., Jr., St. Louis
Cancelada, Juan, Farmington
Canent, Ramon V., Jr., Kansas City
Canlas, Arsenio L., St. Louis
Canlas, Emilio M., Poplar Bluff
Cannon, Edward M., St. Louis
Canoy, Nestor R., Columbia
Cantor, Harvey E., St. Louis
Canty, Eugene J., St. Charles
Capps, Eugene G., Shawnee Mission, Kan. (Member Jackson County Medical Society)
Cardenas, Juan O., Florissant
Carder, George A., Kansas City
Carleton, Charles E., Jr., Farmington
Carlin, Albert L., Stanberry
Carlin, M. Richard, St. Louis
Carls, Garry L., St. Louis
Carlson, Arne E., St. Louis
Carlson, E. C., Poplar Bluff
Carlson, Hjalmar E., Kansas City
Carlson, John S., Kansas City
Carmona, Gilberto V., Arnold
Carmondy, John P., St. Louis
Carmanah, Charles E., Columbia
Carnell, B. M., Buffalo (Member of Mid-Missouri County Medical Society)
Carnes, Victor M., Joplin
Carolla, Robert L., Columbia
Carpenter, George T., St. Joseph
Carpenter, James L., St. Charles
Carpenter, Wallace, Rockport
Carr, Archie D., St. Louis
Carr, Phillip W., Springfield
Carranza, Mauro J., St. Louis
Carrera, Mario, St. Louis
Carrier, John A., St. Louis
Carrington, Howard W., Lebanon
Carroll, George A., St. Louis
Carroll, Grayson, St. Louis
Carroll, Percy J., St. Louis
Carroll, Thomas W., Lamar
Carron, Joseph F., Arnold
Carron, Oscar A., Perryville
Carson, Rickey R., DeSoto
Carter, Edwin E., Creve Coeur
Carter, James E., Kansas City
Carter, James R., Neosho
Carter, John F., St. Louis
Caruso, Alfred A., Kansas City
Cary, John M., St. Louis
Case, Mary E. S., St. Louis
Case, William F., Kansas City
Casey, Edwin J., St. Louis
Casey, Eliot, Florissant
Cash, Charles R., Kennett
Cashman, John W., Kansas City
Cason, Elbert H., St. Louis
Cassel, Melvin A., St. Louis
Castasus, Manuel, St. Louis
Castillo, Michael E., Kansas City
Catalano, J. Denis, Ballwin
Catanzaro, Anthony F., St. Louis
Catanzaro, Francis J., St. Louis
Catanzaro, Rudolph E., St. Louis
Cattaneo, Ernest A., Kansas City
Cavanagh, Denis, St. Louis
Cavaness, Ernest W., Encinitas, Calif. (Member Jackson County Medical Society)
Cayabyab, Pedro C., St. Louis
Cejas, Leandro P., Sikeston
Centner, Paul J., Kansas City
Chadaratana, Phadung, St. Louis
Chakroborty, Hirendra, St. Louis
Chalkley, Judson I., Columbia
Challener, William A., III, St. Joseph
Challoner, David R., St. Louis
Chambers, James Q., Jr., Kansas City
Chamness, James T., St. Louis
Chand, Suresh, St. Louis
Chandler, R. Allen, Kansas City
Chandra, Mahesh D., Independence
Chanduwadia, D. J., Hazelwood
Chang, David Y. C., Kansas City
Chang, Lawrence, St. Louis
Chapel, James L., Columbia
Chaplin, Hugh, Jr., St. Louis
Chapman, Charles L., Columbia
Chapman, David W., Independence
Chapman, Jean A., Cape Girardeau
Charles, Benjamin H., St. Louis
Charles, Francois R., St. Louis
Charnas, Raymond M., St. Louis
Chase, Ned B., Jr., Joplin
Chastain, Charles W., Farmington
Chatkupt, Suthon, Excelsior Springs
Chaudhary, Mohammad A., Kansas City
Chaudhuri, Sudha T., Kansas City
Chaudhuri, Tapan K., Kansas City
Chavez, Salvador, St. Louis
Cheek, Charles W., Columbia
Cheek J. William, Springfield
Chehval, Michael J., St. Louis
Chernoff, Selbert G., Kansas City
Cherre, Anthony J., St. Louis
Cherre, Charles J., St. Louis
Chesnow, Robert L., St. Louis
Chesney, George W., Joplin
Cheuk, Shu-sum, St. Louis
Chiasson, E. Chaille, Columbia
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Childs, Richard M., Kansas City
Chiles, David R., Smithville
Chinsky, Murray, St. Ann
Chipongian, Raul A., St. Ann
Chishti, M. Ishaq, St. Louis
Cho, Kyu S., St. Louis
Choi, Sae Rong, St. Louis
Chou, Yen Ping, Koch
Chouinard, Michael P., St. Louis
Chowdhury, Dipak, Independence
Christ, Martin H., St. Joseph
Christensen, Harold L., Springfield
Christy, John P., Poplar Bluff
Christy, Raymond A., Springfield
Chua, Steven H. T., Florissant
Chung, Kap Eun, Fredericktown (Member St. Louis County Medical Society)
Chung, Moo H., Kansas City
Chung, Richard T., Kansas City
Churchill, Stephen W., Kansas City
Chute, W. Deward, Moberly
Ciapciak, Stanley J., St. Louis
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Clark, Granville E., Kansas City
Clark, Irving H., Kansas City
Clark, Kendall A., Jefferson City
Clark, Richard E., St. Louis
Clarke, Michael J., Springfield
Clarke, Michael S., Springfield
Clary, William F., Springfield
Claseman, Wilma W., St. Louis
Clasen, Arthur C., Miami Beach, Fla. (Member Jackson County Medical Society)
Clawson, James W., Springfield
Claycomb, Gerald K., St. Louis
Clayton, Edgar L., Springfield
Clayton, Jill M., Town & Country
Cleary, Frank, St. Louis
Clendenin, William W., St. Louis
Clever, Henry W., Jr., St. Charles
Cline, Merle A., Kansas City
Clisham, John F., Hannibal
Clothier, Robert W., Independence
Clough, Charles A., Kansas City
Coates, Thomas A., St. Louis
Cohh, James R., Kansas City
Cohb, Milton L., St. Louis
Coben, Lawrence A., St. Louis
Cohum, Donald F., Kansas City
Cochran, Donald Q., Columbia
Cochran, Jo R., Cape Girardeau
Cochran, Thomas E., Jr., Springfield
Cochrane, Joseph J., Kansas City
Cockerell, Sanford F., Independence

Codilla, Sostenes G., High Ridge
Cofer, T. N., Chillicothe
Coffee, Amos L., Willow Springs
Coffey, Ralph R., Kansas City
Coffin, Theodore A., Kansas City
Cohen, Edward, St. Louis
Cohen, Frank, St. Louis
Cohen, Harry B., Columbia
Cohen, Harry K., Kansas City
Cohen, Hillard K., St. Ann
Cohen, Lawrence S., Kansas City
Cohen, Robert S., St. Louis
Cohle, Richard R., Carthage
Cohrs, Clarence C., Moberly
Cokington, Leovigildo, Independence
Cokhame, Jack, Florissant
Colbert, Robert S., Sikeston
Colburn, R. Marshall, Madison, Wis.
(Member St. Louis Medical Society)
Cole, Harry O., St. Louis
Cole, William R., Smithton
Coleman, Robert L., Kansas City
Colglazier, Mary C., Kansas City
Coller, Frederick B., Springfield
Collins, Douglas D., Springfield
Collins, Edward J., Fort Leonard Wood
(Member St. Louis Medical Society)
Collins, Gretchen D., Macon
Collins, Jack R., St. Louis
Collins, John A., St. Louis
Collins, John M., St. Louis
Collins, John W., Kansas City
Colloidi, George A., Taylorville, Ill. (Member
St. Louis Medical Society)
Colom, George A., Kansas City
Colosi, Nicholas J., Ardmore, Pa. (Member
St. Louis Medical Society)
Colwill, Jack M., Columbia
Comas, Manuel R., Manchester
Comeau, Richard A., Dexter
Comens, Phillip, St. Louis
Comens, Ruth C., St. Louis
Comer, J. Russell, New London
Comfort, George D., Mexico
Commerford, John F., St. Charles
Conant, James F., DeSoto
Cone, Alfred J., Chesterfield
Cone, William, Rolla
Conn, Robert D., Kansas City
Connelly, Michael W., Frontenac (Member
St. Charles-Lincoln County Medical
Society)
Connors, John P., St. Louis
Conrad, Adolph H., Jr., Clayton
Conrad, Joseph A., Chillicothe
Conrad, Marshall B., St. Louis
Conrad, Raymond C., Springfield
Cook, James R., Springfield
Cook, Jerry W., Kansas City
Cook, Marvin A., St. Louis
Cook, Thomas B., Richmond
Cooper, Barry R., Kansas City (Member
Clay County Medical Society)
Cooper, C. Wesley, Springfield
Cooper, Charles W., Jefferson City
Cooper, Claude W., Thayer
Cooper, Henry T., St. Louis
Cooper, James F., Florissant
Cooper, Maurice E., Columbia
Cooper, R. Lee, Warrensburg
Cooper, Robert, II, Warrensburg
Cooper, Thomas J., St. Louis
Cooper, Thomas P., St. Louis
Cooperstock, Michael, Columbia
Cope, James C., Columbia
Cope, Joseph S., Lexington
Copp, Ralph, St. Louis
Coppinger, Thomas A., Kansas City
Corday, Robert J., St. Louis
Corder, Robert L., Jr., St. Joseph
Cordonnier, James K., Springfield
Cordonnier, Justin, St. Louis
Coronado, Mario A., St. Louis
Corry, Francis M., Springfield
Cortner, Mary C., Kansas City
Corvalan, Juan C., St. Louis
Corwin, Kenneth D., St. Louis
Coscia, Robert L., Springfield
Costa, Dominic V., St. Louis
Costello, Cyril J., St. Louis
Costello, Joseph P., Jr., Brentwood
Costen, William S., St. Louis
Castrino, Joseph A., St. Louis
Cotter, J. H., Mexico
Cotton, Thomas R., Kansas City
Coulson, Forest H., Cape Girardeau
Conlter, James W., Springfield
*Courter, Gary, Lebanon
Courter, Larry P., Jefferson City
Cova, Reno R., Jr., Florissant (Member St.

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Charles-Lincoln County Medical Society)
Covarrubias, Jorge A., St. Louis
Cowan, George A. B., Kansas City
Cowdry, Edmund V., Jr., Asheville, N. C.
(Member St. Louis County Medical
Society)
Cowley, Ray G., Mt. Vernon
Cox, John P., St. Joseph
Cox, Kenneth E., Kansas City
Cox, Mary E., St. Louis
Cox, Robert D., Louisville, Ky. (Member
St. Louis County Medical Society)
Cox, William A., Jefferson City
Cox, William L., Liberty (Member Jackson
County Medical Society)
Coxe, William S., St. Louis
Cozart, Duane E., Chesterfield
Cozean, Charles H., Jr., Cape Girardeau
Craig, Alan G., St. Louis
Craig, Herbert W., Columbia
Craig, Irwin T., Joplin
Craig, Owen W. D., St. Joseph
Craig, Richard O., St. Joseph
Crain, James W., Branson
Cralle, Robert V., St. Louis
Crane, John Bruce, Washington
Craven, Thomas F., Ft. Thomas, Ky. (Mem-
ber St. Louis Medical Society)
Crawford, Archie L., Joplin
Crawford, Katherine J., University City
Crawford, Oral B., Springfield
Crawford, Robert M., Sullivan
Crayton, Billy G., Waverly
Creech, Joseph C., Troy
Cremier, William J., Fulton
Crespin, Stephen R., St. Louis
Crespo, Horacio T., Florissant
Crespo, Remedios R., Florissant
Crider, Russell J., St. Charles
Crighton, John C., Springfield
Criscione, James R., St. Louis
Criscione, James S., St. Louis
Crispell, Lawrence S., Joplin
Critchlow, Wm. C., Sikeston
Crocker, Albert M., Kansas City
Crockett, James E., Kansas City
Croom, Dorwyn W., Malden
Cross, Albert D., Trenton
Crossman, Robert W., Webster Groves
Crostbwait, Ed L., Springfield
Crouch, F. Richard, Farmington
Crouch, Thomas T., Kansas City
Coulter, James W., Springfield
Crow, Martin L., Kansas City
Crowe, John T., Cape Girardeau
Crowell, Hugh C., St. Louis
Crowley, Wm. J., Jr., Columbia
Crozier, Franklin A., Richmond
Cruz, Eligio C., St. Louis
Cruz, Sergio G., Jr., Monett
Csaki, Bela, Kansas City
Cubillo, Enrique, St. Louis
Cuento, Oblendo A., St. Louis
Culley, Thomas S., Columbia
Cullum, Albert G. J., Middlesboro, Ky.
(Member St. Louis County Medical
Society)
Cundiff, Harry C., Jr., Columbia
Cunningham, Darral D., Springfield
Cunningham, E. J., Jr., St. Louis
Curnow, Richard B., Liberty
Curran, Desmond, Kansas City
Curry, Michael J., St. Charles
Curtis, Calvin J., Kansas City
Cutcliff, Daniel J., Kansas City
Cutler, Gordon B., Jr., Washington, D. C.
(Member St. Louis Medical Society)
Cutler, Harold M., St. Louis
Cutler, Harry, St. Louis
Czebrinski, Edward W., St. Louis

D

Daake, John, St. Louis
Daake, John W., St. Louis
Dabbs, Wilbur D., Neosho
Dagartzikas, A. K., Town & Country
Dahm, Charles H., Jr., St. Louis
Daley, Frank R., Hamilton
Dalton, Arthur R., St. Louis
Dalton, Timothy T., Kansas City
Dames, Richard J., St. Louis
Damron, Edward O., Elsberry
Damron, Oscar H., Warrensburg
Danforth, William H., St. Louis
Danganan, Candido, St. Louis
Danganan, Eleana, St. Louis
Danielsson, Ernst P., Springfield
Danis, Peter G., St. Louis
Danis, Richard K., St. Louis
Dankner, Arnold, St. Louis
Darnell, Dale E., Kansas City

Darnell, Thomas F. B., Branson (Member
Boone County Medical Society)
Das, Arabinda, Belleville, Ill. (Member St.
Louis County Medical Society)
Dash, Udaya N., St. Louis
Datta, Jyoti S., Mt. Vernon
Datta, Kapal D., St. Louis
Datta, N. K., Bonne Terre
Daughaday, William H., St. Louis
Daum, Harold F., Sedalia
Daum, Wayne J., St. Louis
Daut, Donald W., Mexico
Davault, George K., Richmond
Davidner, Mark L., Kansas City
Davidson, Kendrick C., Leawood, Kan.
(Member Jackson County Medical
Society)
Davidson, Morris, Clayton
Davis, C. Braxton, Nevada
Davis, Charles S., Joplin
Davis, David, Columbia
Davis, Donald R., Kansas City
Davis, Edgar W., St. Louis
Davis, Gustave L., St. Louis
Davis, Herbert V., Kansas City
Davis, Jack M., Kansas City
Davis, Kenneth A., Kansas City
Davis, Landis Y., Canton
Davis, Leonard L., Jr., Mexico
Davis, Martin W., St. Louis
Davis, Mary A., St. Louis
Davis, Wilbur L., Charleston
Davis, William E., Columbia
Davisson, Walter F., Jefferson City
Dav, Maxwell, McAllen, Texas (Member
Buchanan County Medical Society)
Deakin, Rogers, St. Louis
Dean, Francis D., Fayette
Debnam, James W., Jr., St. Louis
Decanini, Mario, St. Joseph
DeCastro, Edwino J., St. Louis
Deckard, Shelby, Metairie, La. (Member
Greene County Medical Society)
Deeken, James H., Kansas City
Deeths, Tony M., Creve Coeur
De Feo, Theodore C., Kansas City
DeGenova, Gerald H., Ste. Genevieve
Dehner, Jonathan D., St. Louis
Deitchman, Robert B., St. Louis
De Jesus, Alberto, St. Louis
de la Torre, John J., Sullivan
Del Carmen, Jaime J., Maryland Heights
DeLeon, Romualdo V., Arnold
Deles, Vicente D., Crystal City
Deligeorges, John, Kansas City
DeLima, Clarence A., Wingdale, N. Y.
(Member Boone County Medical Society)
Del Pizzo, Ferdinand, St. Charles
Del Rosario, Horacio O., St. Louis
Del Valle, Fernando, St. Louis
DeMaria, Peter F., Kansas City
DeMott, John D., Kansas City
DeMotte, Jeanne M., Richmond
DeMotte, John A., Kansas City
Dempsey, Herbert A., Lee's Summit
Denes, Bela, High Ridge
Denk, Alan F., St. Louis
Denninghoff, James C., Columbia
Dennis, W. Paul, Desloge
Dennison, Carl F., St. Louis
Dent, George W., Jr., Farmington
Denton, Robert E., Smithville
Denoncourt, John E., Smithville
Desai, Ravindra, St. Charles
DeTar, Burleigh E., Joplin
Dettmer, Robert F., Ironton
de Ungria, Estelita Maria, St. Louis
de Ungria, Pablo Calma, St. Louis
Deutch, Max, St. Louis
de Vera, Anson E., St. Louis
Devgan, Baldev K., St. Louis
Devgan, Manju, St. Louis
Devine, John B., St. Louis
Devine, Mark W., Jr., Kansas City
Devins, George S., Kansas City
DeVivo, Darryl C., St. Louis
Dew, Thomas A., St. Louis
Dewald, Paul A., St. Louis
Deweine, Edward G., St. Louis
Dexheimer, Frank R., Columbia
Dexter, James D., Columbia
Dickhaus, Donald, Columbia
Dickler, Donald J., St. Louis
Diehr, Maurice A., St. Louis
Diekroeger, Manuel L., Boonville
Diemer, Peter A., St. Louis
Dierker, H. D., Farmington
Diestelhorst, James A., Creve Coeur
Difilippo, Emil A., Bridgeton (Member St.
Charles-Lincoln County Medical Society)
DiLeo, Senatro W., Florissant
Dillard, Burl M., St. Louis

Dillard, Erin M., Springfield
Dills, Joseph N., Springfield
Diamond, E. Grey, Kansas City
Dinkins, James A., Cape Girardeau
Diveley, Rexford L., Kansas City
Dixon, George D., Kansas City
Dixon, John R., Brookfield
Dixon, Vewiser L., Kansas City
Dizney, Desmon M., Maryville
Dlalah, Luke J., Independence
Dlalah, Luke J., Jr., Lee's Summit (Member Jackson County Medical Society)
Dmytryk, Eugene T., St. Louis
Dodge, Mark, Kansas City
Dodge, Philip R., St. Louis
Doerhoff, Adelia, Jefferson City
Doerhoff, Alan, Jefferson City
Doering, Robert W., Kansas City
Doisy, Philip P., St. Louis
Doisy, Robert A., Glendale
Dolan, C. Terrance, N. Kansas City (Member Clay County Medical Society)
Dolan, Daniel L., Springfield
Dolan, John T., Jr., St. Louis
Domann, Darrel D., Springfield
Domke, Herbert R., Jefferson City (Member Callaway County Medical Society)
Domond, Lherrisson, St. Louis
Donaldson, Robert C., St. Louis
Donati, Robert M., St. Louis
Donley, Leo F., Jr., St. Louis
Donley, Robert R., Monett
Donnell, Harold E., De Soto
Donnell, Robert H., Crystal City
Donnell, Thomas A., Hillsboro
Donovan, John, St. Louis
Donovan, Thomas J., St. Louis
Dooley, Joseph M., Jr., St. Louis
Dorsch, Ervin H., Independence
Dorton, Robert K., St. Louis
Doucette, Raymond C., St. Louis
Dowell, George H., St. Louis
Dowell, J. Larry, Pattonsburg
Downey, James W., Kansas City
Downey, Jon Patrick, Cape Girardeau
Doyle, Charles R., St. Louis
Drace, Charles C., Jr., St. Louis
Drake, Avery A., Phoenix, Ariz. (Member Mid-Missouri County Medical Society)
*Drake, David W., St. Louis
Drake, Roy F., Kansas City
Drake, William L., Jr., St. Louis
Draney, Thomas E., Kansas City
Draper, Bernard, Rolla
Dreher, Richard L., Kansas City
Drescher, Emmett B., St. Louis
Drews, Robert C., St. Louis
Drey, Norman W., St. Louis
Dreyer, Carl J., Webster Groves
Dreyer, Philip V., Huntsville
Drever, William F., Houston
Drisko, Robert M., Kansas City
Drowns, Bruce V., Kansas City
Drum, Helen M., St. Louis
Dubuque, Theodore J., Jr., St. Louis
Duemler, Robert H., Kirkwood
Duensing, George F., Louisiana
Duer, Mildred C., Kansas City
Duffy, Francis G., St. Louis
Duffy, Oliver F., Trenton
Duggan, John J., Jr., Kirkwood
Dukstein, Walter G., Kansas City
Dulick, Michael, Brentwood
Duling, Gerald J., St. Charles
Dumadag, Virgilio P., Chesterfield
DuMont, Clement C., St. Joseph
DuMontier, R. J., O'Fallon
Dunaway, Howard A., Sikeston
Duncan, David, St. Charles
Duncan, Robert D., Springfield
Duncan, Wm. H., Kansas City
Dunham, Robert H., N. Kansas City
Dunlany, Sam C., St. Louis
Dunleavy, James D., Kansas City
Dunmire, George Q., Kennett
Dunn, Robert E., Johnstown, Pa. (Member St. Louis Medical Society)
Dunshee, Robert E., Maryville
DuPont, Jean-René, Sikeston
Durie, Robert H., Kansas City
Durkin, John W., Jr., St. Louis
Durnell, Monaford D., Lee's Summit
Durr, Jon W., St. Charles (Member St. Louis County Medical Society)
Durst, Henry, Fulton
Dworkin, Saul, St. Louis
Dwyer, Frank X., Kansas City
Dwyer, Hugh L., Shawnee Mission, Kan. (Member Jackson County Medical Society)

* Doctor of Osteopathy.

Dwyer, Thomas L., Mexico
Dyer, Dallas J., St. Louis
Dyer, Gary A., St. Joseph
DyRagosa, Ramon R., Kansas City (Member Clay County Medical Society)
Dzundzev, Pencio, St. Louis
Dzur, James R., Cape Girardeau

E

Eachempati, Rama G., St. Ann
Eachempati, Uma R., Chesterfield
Eades, Dee W., St. Louis
Eades, Joseph W., St. Louis
Eagleton, Mark D., St. Louis
Earnest, James B., Kansas City
Earp, Ralph K., Mexico (Member St. Louis Medical Society)
Ebel, Eugene H., Florissant
Eberle, Vincent L., St. Louis
Eck, Birkle, St. Louis
Ecker, Decider, Pacific (Member St. Louis County Medical Society)
Eckert, Clarence T., Sarasota, Fla. (Member St. Louis Medical Society)
Ecklund, Archibald M., San Diego, Calif. (Member St. Louis Medical Society)
Edele, Eugene H., St. Louis
Edelman, Alan H., St. Louis
Edmonds, Robert W., Sedalia
Edwards, D. R., Sedalia
Edwards, Donald E., Cape Girardeau
Edwards, James E., St. Louis
Edwards, Joseph C., St. Louis
Edwards, Theodore F., Kansas City
Edwards, Waldo B., Kirkwood (Member Jefferson County Medical Society)
Efsthathianos, Kimon, St. Louis
Egan, Robert C., St. Louis
Egan, Thomas F., St. Louis
Eggers, George W. N., Jr., Columbia
Eggleston, Donald E., Macon
Eggleston, Harry C., St. Louis
Eggleston, Thomas F., St. Louis
Ehrlich, Carl F., Jr., St. Louis
Eidelman, Jack R., St. Louis
Eimer, Charles E., Sikeston
Eisemann, Gustave, Kansas City
Eisen, Arthur Z., St. Louis
Eisenmann, Benjamin P., New Haven
Ekern, H. Peter, Mexico
Eklund, Alfred W., Pleasant Hill
Eldenburg, Donald, Sedalia
Elders, Frank A., Jr., Cuba
Elias, David J., Independence
Eliasson, Sven G., St. Louis
Eliscu, Juliette, Joplin
Elkadi, Ahmed, Springfield
Elkins, Ronald F., Springfield
Eller, C. Howe, Santa Fe, N. M. (Member St. Louis County Medical Society)
Eller, Gordon W., Cape Girardeau
Elersieck, Dorothy M., St. Louis
Ellett, William H., Appleton City
Elfeldt, Howard J., Kansas City
Elliott, Raymond G., Kansas City
Elliott, Wade E., Kansas City
Ellis, David, Overland Park, Kan. (Member Jackson County Medical Society)
Ellis, Francis J., Springfield
Ellis, Harry L., Springfield
Ellis, Jeffrey J., St. Louis
Ellison, Leroy E., Warren, Ark. (Member St. Louis County Medical Society)
Ellsasser, James C., St. Louis
Ellsworth, Willard, Cainsville
Elrod, Dennis B., Cape Girardeau
Elser, Otto H., Independence
Elyson, Julius, St. Louis
Elyassi, Hedayatollah, Columbia
Emeran, George, St. Louis
Emerson, Reynolds L., St. Louis
Emert, Frank L., Jr., Sedalia
Engel, Lawrence P., Shawnee Mission, Kans. (Member Jackson County Medical Society)
Engelhardt, Robert C., Poplar Bluff
Engelmann, Calvin E., Kansas City
Engleman, Reinhold, Kansas City
English, Milton T., Jr., Kirksville
English, Wallace D., Cardwell
Epstein, James M., St. Louis
Ericson, Samuel E. F., Kansas City
Erickson, H. John, Sedalia
Ernst, Edwin C., Jr., St. Louis
Ernst, Joseph G., St. Louis
Ernst, Richard E., St. Louis
Ernst, Roland P., St. Louis
Escobedo, Bolivar, Manchester
Escoffery, Richard, St. Louis
Eshelman, Albert D., Independence
Esparrago, Francisco R., Jr., Monett

Esslinger, Arthur T. J., St. Louis
Essmyer, Joseph K., Cape Girardeau
Esterly, James A., Columbia
Estes, Jack M., St. Louis
Esther, John R., Joplin
Estrada, Corazon deLeon, St. Louis
Estrada, Jesus I., St. Louis
Etheredge, Edward E., St. Louis
Etienne, Robert B., St. Louis
Eto, Jackson, St. Louis
Eubank, David F., Kansas City
Eubank, Dillard M., Raytown
Eubank, William Y., Kansas City
Eugenio, Romeo R., Perryville
Euprasert, Pricha, Kansas City
Evans, Elizabeth A., Kansas City
Evans, Ezra L., Jr., Springfield
Evans, John F., Independence
Evans, Joseph C., Jr., Independence
Evans, Lawrence G., St. Louis
Evans, Lawrence L., Kansas City
Evens, Ronald G., St. Louis
*Everett, James E., Kansas City
Eversoll, Norton J., Hollywood, Fla. (Member St. Louis County Medical Society)
Exarhou, Klark, St. Louis
Exon, C. Stuart, Jefferson City
Eyerman, Edward L., Jr., St. Louis
Eyermaun, H. Walter, Warrenton

F

Fabian, Leonard W., St. Louis
Fabito, Daniel C., Maryland Heights
Fabito, Melinda A., Eureka (Member St. Louis County Medical Society)
Fair, William L., Chillicothe
Fair, William R., St. Louis
Fairchild, James F., Perryville
Fairchild, Robert C., Shawnee Mission, Kan. (Member Jackson County Medical Society)
Fakhoury, Donald A., Kansas City
Fallon, Richard H., St. Louis
Faraon, Jose B., Kansas City
Farberman, Elliott, Florissant
Fard, Kayoumars, St. Louis
Farkas, James R., Sedalia
Farmer, Norma D., Farmington
Farney, Jacob P., Kansas City
Farnham, Milo M., Independence
Farnsworth, Jesse J., Kansas City
Farrales, Franklin B., Kansas City
Farrell, Corinne, Columbia
Farrell, Frank W., St. Louis
Farrell, John S., Ann Arbor, Mich. (Member St. Louis Medical Society)
Farrell, Robert J., St. Louis
Farrell, S. L., Washington
Farthing, Gene W., Springfield
Fathman, Anthony E., St. Louis
Favazza, Armando R., Columbia
Fayez, Jamil A., Kansas City
Fayne, Fred A., Kansas City
Fedotin, Michael S., Kansas City
Fee, Chester F., Kansas City
Feeley, Donald R., Ballwin
Fehlman, Bernard F., Jr., St. Louis
Feibel, Robert M., St. Louis
Feigin, Ralph D., St. Louis
Feind, Earl E., Rolla
Feist, George V., Kansas City
Feist, Wm. Edgar, Kansas City
Felder, James P., St. Charles
Feldman, David, Creve Coeur
Felix, Robert H., St. Louis
Feller, Harold H., St. Louis
Fellhauer, Carl M., St. Louis
Fellows, Richard A., Kansas City
Felts, James A., St. Louis
Feltz, Lawrence W., Perryville
Ferguson, Donald S., Kansas City
Ferguson, John L., Springfield
Ferguson, John P., Jr., Springfield
Ferguson, L. H., Jr., Alexandria, La. (Member Jasper County Medical Society)
Ferguson, Luther J., St. Joseph
Ferguson, Ralph L., Joplin
Ferguson, Robert M., Joplin
Ferguson, Thomas B., St. Louis
Ferneau, James E., Columbia
Ferrara, John P., Chesterfield
Ferrell, Thomas E., Jr., Springfield
Ferrendelli, James A., St. Louis
Ferris, Carl R., Kansas City
Ferro, Anthony L., St. Louis
Ferry, Richard J., St. Louis
Fetick, Paul G., St. Louis
Feutz, Edward P., St. Louis
Figueroa, Eliseo O., St. Louis
Files, James B., Jefferson City

Finger, Donald H., St. Louis
 Fingerhood, Marvin G., St. Louis
 Fingert, Hyman H., St. Louis
 Fink, LeRoy L., St. Louis
 Fink, Roger L., Springfield
 Finkel, Barney W., St. Louis
 Finkle, Robert H., Independence
 Finn, Murray E., St. Louis
 Finnegan, Joseph V., St. Louis
 Fiordelisi, Rocco J., St. Louis
 Fischer, Edward H., Kansas City
 Fischer, Erich, St. Louis
 Fischer, John R., Clayton
 Fischer, Jose, Shawnee Mission, Kan.
 (Member Jackson County Medical Society)
 Fischer, Martin J., St. Joseph
 Fischer, Theodore, Altenburg
 Fish, Richard, St. Louis
 Fish, Virgil O., St. Louis
 Fisher, James K., Shawnee Mission, Kan.
 (Member Jackson County Medical Society)
 Fisher, Joseph L., St. Joseph
 Fisher, Stanley D., Sedalia
 Fishman, John J., St. Louis
 Fishman, Marvin A., St. Louis
 Fitch, C. H. Max, Springfield
 Fitch, Coy D., St. Louis
 Fite, James E., Springfield
 FitzGerald, Leo P., St. Louis
 Fitzgerald, Robert H., Kansas City
 Fitzgerald, William T., St. Louis
 FitzSimmons, James G., Kansas City
 Fivian, Gerald J., St. Louis
 Flance, Israel J., St. Louis
 Flanders, Virgil E., Leawood, Kan. (Member Clay County Medical Society)
 Flanigan, George D., Jr., St. Louis
 Flatley, John A., Kansas City
 Flavan, David B., St. Louis
 Fleishman, Alfred, St. Louis
 Fleming, Allan R., Kansas City
 Fleming, J. Will, Moberly
 Fleming, Robert J., St. Charles
 Fleming, Thomas S., Moberly
 Fletes, James W., St. Louis
 Floerchinger, James S., St. Charles
 Florendo, Federico N., Jr., Hannibal
 Florendo, Purificacion T., Hannibal
 Flores-Vega, Carlos H., St. Louis
 Floro, Mariano N., Florissant
 Flotte, Bernard H., Florissant
 Flotte, Sylvester A., Florissant
 Flynn, Edward P., St. Louis
 Flynn, James M., Kansas City
 Flynn, John T., St. Louis
 Flynn, Joseph E., St. Louis
 Flynn, Thomas T., St. Louis
 Fogarty, William M., Jr., St. Louis
 Fogerson, Virginia L., Springfield
 Fogle, Philip R., Springfield
 Folck, William P., Kansas City
 Folkner, A. L., Warrensburg
 Foote, Jerry E., Columbia
 Ford, Lee T., Jr., Belleville, Ill. (Member St. Louis Medical Society)
 Ford, Thomas E., Columbia
 Ford, William, Farmington
 Fordyce, Norman A., Kansas City
 Foreman, Phillip B., Hannibal
 Forman, George W., St. Joseph
 Forman, Louis H., Kansas City
 Forrest, John V., St. Louis
 Forsen, James A., Gower (Member St. Louis Medical Society)
 Forsman, Waldo W., Jr., St. Louis
 Forsyth, B. Todd, St. Louis
 Forsythe, Lees C., Kansas City
 Forsythe, Robert W., Kansas City
 Forti, John J., St. Louis
 Fortin, Felix D., III, Kansas City
 Foster, C. Stephen, Newton, Mass. (Member St. Louis Medical Society)
 Fotopoulos, Chris K., Kansas City
 Fouts, Dallas B., Sr., Independence
 Fowler, Fred D., Kansas City
 Fowler, I. Charles, N. Kansas City
 Fowler, James W., Kansas City
 Fowler, Marvin L., West Plains
 Fox, Gerald E., St. Joseph
 Fox, Leon J., St. Louis
 Fox, Robert E., St. Louis
 Francis, William C., Springfield
 Francisco, Clarence B., Kansas City
 Francisco, Dominic, St. Louis
 Francisco, Edgardo C., Nevada
 Franco, Pilar Juan, Kansas City

Frank, Alvin R., St. Louis
 Frank, Gael R., Kansas City
 Franklin, Curtis U., Kansas City
 Franklin, Harold A., St. Louis
 Franklin, Max S., St. Louis
 Fraser, Daniel M., St. Louis
 Fraser, Richard A., Poplar Bluff
 Frawley, Thomas F., St. Louis
 Frazier, Robert E., Columbia
 Frazier, Robert L., Charleston
 Frazier, William L., St. Louis
 Frederick, Raymond O., St. Louis
 Freedman, Harold, St. Louis
 Freedman, Ruth S., St. Louis
 Freeman, David M., St. Louis
 Freeman, Jerry C., Kansas City
 Freiheit, Harold J., St. Louis
 Freiman, S. Michael, St. Louis
 Frein, Donald E., Harrisonville
 Freund, Samuel J., St. Louis
 Fried, Frederick E., Columbia
 Friedman, Ira J., St. Louis
 Friedman, Morris L., Kansas City
 Friedman, Paul L., St. Louis
 Friedman, Robert H., St. Louis
 Friedrich, Anthony P., Florissant
 Friedrich, Ernst R., St. Louis
 Fries, Armand D., St. Louis
 Fries, John W., St. Louis
 Friskel, Arthur K., St. Louis
 Fristoe, Frank, Jr., Columbia
 Fritsch, Andrew J., Joplin
 Fritzlen, Thomas J., Kansas City
 Froelich, Edwin J., Lebanon (Member St. Louis County Medical Society)
 Froelich, R. W., Lebanon
 Frueh, Bartley R., Columbia
 Frumson, Guy H., St. Louis
 Fryer, Minot P., St. Louis
 Fuchs, George J., Barnett
 Fuchs, George J., Jr., Columbia
 Fuhrman, Donald L., Kansas City
 Fujita, Milton T., St. Louis
 Fuleihan, Farid, St. Louis
 Fulks, Richard B., California
 Fullgrabe, Emil A., Jefferson City
 Funsch, Robert E., St. Louis
 Furla, Gus J., St. Louis
 Furlow, Leonard T., Crystal River, Fla.
 (Member St. Louis Medical Society)
 Fuson, Levi H., St. Joseph
 Fuson, William A., Trenton

G

Gabilondo, Jorge, Augusta, Ga. (Member St. Louis Medical Society)
 Gaffney, Caldwell J., St. Louis
 Gafney, George T., St. Louis
 Gagliardo, Joseph, St. Louis
 Gaines, Albert, Kansas City
 Gaines, Quentin M., Kirkwood
 Gainey, Harold L., Kansas City
 Gaitonde, Mangesh R., Kansas City
 Galakatos, Andrew F., St. Louis
 Galbol, Harley, Excelsior Springs
 Galbreath, Ashford M., Kansas City
 Gale, Arthur H., Overland
 Gale, Joseph F., Chillicothe
 Galeota, William R., Columbia
 Galinsky, Leon J., Green Valley, Ariz.
 (Member Ozarks County Medical Society)
 Gall, Ira, St. Louis
 Gallagher, Lionel M., California
 Galvez, Sisenande P., Jr., Marceline
 Gambill, Alice F., Columbia
 Gammel, George E., Columbia
 Gandlmayr, Jack M., St. Louis
 Gansloser, Wilbert M., Clayton
 Gantner, George E., Jr., St. Louis
 Gantz, John A., St. Louis
 Gapasin, Ernesto, Lebanon
 Garcia, Charles L., Mexico
 Garcia-Ferrer, Eduardo, St. Louis
 Gard, Raymond F., Sun City, Ariz. (Member Jackson County Medical Society)
 Gardner, Joseph A., Joplin
 Gardner, Joseph W., Kimberling City
 Garfinkel, Bernard T., St. Louis
 Garner, James H., Kansas City
 Garner, Lynn M., Jefferson City
 Garner, Royal S., Jefferson City
 Garrett, Glen H., Columbia
 Garriga, Francisco J., St. Louis
 Garrison, David L., St. Joseph
 Garrison, Roy F., Kansas City
 Garrison, T. W., Camdenton (Member Mid-Missouri County Medical Society)
 Garotto, Lewis J., Columbia

Gary, George, Marceline
 Gaska, Walter J., Springfield
 Gaskins, John H., Kansas City
 Gaston, Samuel Lee, Joplin
 Gauer, Robert J., Kansas City
 Gaunt, Frank P., Webster Groves
 Gaunt, William D., Columbia
 Gauthier, Charles P., Kansas City
 Gay, Elizabeth K., Florissant
 Gearhart, David L., St. Louis
 Gearhart, Merriam, Bethany
 Gearhart, Wilbur H., St. Louis
 Gedney, William B., Valley Park
 Geha, Alexander S., New Haven, Conn.
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 Geha, Braham J., Kansas City
 Geiger, William A., Jr., Kansas City
 Geise, August W., Jr., St. Louis
 Geisse, Guillermo, St. Louis
 Gellman, Elliott F., St. Louis
 Gempel, Paul A., Shawnee Mission, Kan.
 (Member Jackson County Medical Society)
 Genove, Vidalita, Kansas City
 Gentry, Enoch N., Jr., Kansas City
 Gentry, Marvin C., Ava
 Gentry, Merrit L., Reeds Spring (Member Cole County Medical Society)
 Gentry, Michael A., Springfield
 Gentsch, Kenneth W., Glendale
 George, Theodore, Richmond
 Gerdes, John A., Springfield
 German, Walter A., Jr., Springfield
 Germann, Donald R., Kansas City
 Germuth, Frederick G., Jr., St. Louis
 Gerntetter, Sangwill L., Poplar Bluff
 Gerst, Aloysius C., Florissant
 Gholkar, Vijay R., Kansas City
 Giacobbe, Peter J., Kansas City
 Giannellis, C., St. Louis
 Gibbons, Robert T., Jr., Kansas City
 Gibson, David M., Kansas City
 Gibstine, Marvin H., St. Ann
 Giddings, Frank C., Springfield
 Gideon, Charles, St. Louis
 Gieselman, Ralph V., St. Louis
 *Giffen, L. E., Jefferson City
 Giffin, James M., Springfield
 Gildea, Edwin F., St. Louis
 Gildea, Margaret C. L., St. Louis
 Gilden, Jerome J., St. Louis
 *Gilgore, Alfred, Lenexa, Kan. (Member Jackson County Medical Society)
 Gill, Paul J., Springfield
 Gilliland, Charles E., Cameron (Member Grand River Medical Society)
 Gillispie, Roy, Branson
 Gilpin, Doris C., St. Louis
 Gilula, Louis A., Ladue
 Ginardi, Donald E., Kansas City
 Ginsberg, Norman A., Kansas City
 Giraparnont, Bang Orn, Clayton
 Giraparnont, Prabhak, St. Louis
 Gish, Rutledge, Fulton
 Gist, William W., Kansas City
 Givler, Robert L., Kansas City
 Gladney, John H., St. Louis
 Glaser, Larry F., Kansas City
 Glass, Robert L., Columbia (Member Pettis County Medical Society)
 Glass, William J., Jr., Monett
 Glasscock, Ernest L., Prairie Village, Kan.
 (Member Jackson County Medical Society)
 Glazer, Melvin L., Kansas City
 Glenn, Edward H., Bowling Green
 Glover, Jack F., Springfield
 Glover, Kenneth, Mt. Vernon
 Gnade, Albert J., St. Louis
 Godinez, Marye H., St. Louis
 Godshalk, M. Fredrica, Columbia
 Goebel, Joan M., St. Louis
 Goell, Robert S., St. Louis
 Goerz, Ann F., Independence
 Goerz, Royal D., Independence
 Goetz, Kenneth L., Kansas City
 Goheen, John R., Kansas City
 Gold, Jonathan A., Florissant
 Goldberg, Isadore E., Braymer (Member Lafayette-Ray County Medical Society)
 Goldenberg, Jeffrey F., Milwaukee, Wis.
 (Member St. Louis Medical Society)
 Goldenson, Max J., St. Louis
 Goldfarb, Alvin, St. Louis
 Goldgaber, Alberto, St. Louis
 Goldkamp, John D., St. Charles
 Goldman, Arnold M., St. Louis
 Goldman, Gordon M., St. Louis
 Goldman, Hyman J., St. Louis
 Goldman, Melvin L., St. Louis

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Goldman, Stanley L., Kansas City
Goldring, David, St. Louis
Goldring, Sidney, St. Louis
Goldrich, Edward, Kansas City
Goldstein, Marcy A., St. Louis
Goldstein, Marvin F., Kansas City
Gollub, Samuel W., St. Louis
Gomez, Cesar A., Jr., St. Louis
Gonzalez, M. Garza, Warrensburg
Goodman, J. N., St. Louis
Goodman, Nataniel, St. Louis
Goodrich, Harold A., Webster Groves
Goodson, Wm. H., Jr., Kansas City
Goodwin, Donald W., St. Louis
Goolsbee, Robert L., Kansas City
Gordon, Bruce J., Columbia
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Gore, Glenn L., St. Charles
Gorla, Wayne O., St. Louis
Gose, Don F., Springfield
Gottipatti, Bharathi B., Hannibal
Gottsch, Joseph C., Kansas City
Gowdamarajan, Regasamy, Kansas City
Gowler, Douglas R., St. Louis
Grable, James D., Portageville
Grabske, Charles F., Independence
Grady, Ronald K., St. Louis
Graff, Ralph J., St. Louis
Graham, Patrick G., Kansas City
Graham, Wallace H., Kansas City
Graneto, Joseph A., St. Louis
Grannemann, Harry N., Rolla
Grant, Claude S., St. Joseph
Grant, John M., St. Louis
Grant, Neville, St. Louis
Grant, Samuel B., St. Louis
Graul, Walter P., St. Louis
Graves, Arthur J., Mt. Vernon
Gray, Gary, St. Louis
Gray, Mary Louise, St. Louis
Gray, Walter C., Farmington
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Green, J. Richard, Independence
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Green, Morton R., Belleville, Ill. (Member St. Louis Medical Society)
Green, William R., St. Louis
Greene, Harry L., Hannibal
Greene, W. Wallace, Kansas City
Greenlund, Nelson, Nevada
Greenman, Marshall B., St. Louis
Gregory, John G., St. Louis
Gresick, Robert J., St. Louis
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Griffin, Olin A., Jr., Buffalo
Griffin, William T., Columbia
Griffith, John A., Jr., Kansas City
Griggs, James Y., St. Louis
Grim, Edward M., Joplin
Grimes, Manning E., St. Joseph
Grindon, Joseph B., St. Louis
Grinstein, Alberto, Ypsilanti, Mich.
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Groce, George, Fulton
Gronau, Axel R., Koch
Groschong, Ted D., Columbia
Grossman, Marvin, Fredericktown
Grove, Gulp W., Knob Noster
Growdon, John A., Kansas City
Grubb, Paul H., Joplin
Grubb, Robert L., St. Louis
Gruenfeld, Gerhard E., St. Louis
Grundmann, William H., St. Louis
Grunt, Jerome A., Kansas City
Guastello, Mario J., Kansas City
Cubin, Alan S., Caruthersville
Guhleman, Henry V., Jr., Jefferson City
Guillen, Diosdada, St. Louis
Guillen, Rodolfo T., St. Louis
Guldner, Edmond, Lamar
Gulick, Charles R., St. Louis
Gullett, Charles C., Kansas City
Gummels, Belmont B., St. Louis
Gundle, Sigmund, Kansas City
Gunn, Jack, Versailles
Gunn, Richard W., Kansas City
Gunn, Walter T., St. Louis
Gunter, Ioe S., St. Joseph
Gupta, B. S. N., Kansas City

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Gupta, Narayan C., St. Louis
Gurnee, Landon H., Jefferson City
Gursahani, Man Mohan, St. Louis
Gustafson, Jon E., Independence
Guze, Samuel B., St. Louis
Gwin, Edward, Springfield

H

Haas, Harry D., Kansas City
Habert, E. R., St. Louis
Habib, Henry N., Kansas City
Haddock, James N., St. Louis
Haen, Charles J., Springfield
Haffner, Heinz, St. Louis
Hagan, Daniel J., St. Louis
Hagan, John C., N. Kansas City (Member Clay County Medical Society)
Hagar, David L., Kansas City
Hagebusch, Omer E., Chesterfield
Hagemann, Paul O., Clayton
Hagen, Duane, St. Louis
Hahn, Bruce H., Lee's Summit
Hahn, Frederick W., Jr., Kansas City
Haight, John M., Kansas City
Haith, Edward E., Kansas City
Haith, Walter F., Kansas City
Haley, Ted M., N. Kansas City (Member Clay County Medical Society)
Hall, C. Robert, Versailles
Hall, David G., Columbia
Hall, David W., Rogersville (Member Greene County Medical Society)
Hall, Durward G., Springfield
Hall, Eugene W., Ferguson
Hall, Lee A., Clayton
Hall, Marvin F., Joplin
Hall, Preston C., St. Louis
Hall, Ralph R., Kansas City
Hall, Robert A., St. Louis
Hall, Robert T., Kansas City
Hall, Stanley G., Hannibal
Hall, Thomas B., Lee's Summit
Hall, William K., St. Charles
Hallaba, M. A. S., Joplin
Hallazgo, Santiago Y., Chesterfield
Halley, Robert H., St. Louis
Hallinger, Earl S., Jr., Clayton
Halloran, Mark J., St. Louis
Halperin, Phillip H., Kansas City
Halverson, John D., St. Louis
Hamburg, Frederic L., Springfield
Hamill, Robert W., Kansas City
Hamilton, Caldwell K., Creve Coeur
Hamilton, Eugene G., Clayton
Hamilton, Thomas R., Duluth, Minn.
(Member St. Louis Medical Society)
Hamilton, William P., Aurora
Hamilton, Wm. P., St. Louis
Hamlin, Howard H., Kansas City
Hamlin, Wyeth, Hannibal
Hammes, Roman E., Lake St. Louis
Hammler, Christiana V., St. James
Hammond, D. Wade, St. Charles
Hammond, David T., St. Louis
Hampton, Henry E., St. Louis
Hampton Oscar P., Jr., St. Louis
Hampton, Stanley F., St. Louis
Hanan, Ernest B., Springfield
Hanaway, Joseph, St. Louis
Handler, Eric, St. Joseph
Handler, Fred P., Jefferson City
Hanes, Lily Ann, St. Louis
Hankin, Norman M., St. Louis
Hanna, Faye, Bridgeton
Hanna, Hugh A., Warrensburg
Hansbrough, Eugene T., Poplar Bluff
Hansel, French K., St. Louis
Hansen, Arthur L., Butler
Hanser, Theodore H., St. Louis
Hanson, Ernest J., Jr., Kansas City
Hanson, Karl H., Jr., Kansas City
Hanss, Armand W., Springfield
Hantman, Stephen L., Florissant
Hantz, Oscar, Florissant
Hardacre, Ruth A., Kansas City
Hardin, William B., Jr., St. Louis
Hardwicke, Henry M., Ashland
Hardy, David A., St. Louis
Hardy, Guerdan, Clayton
Hardy, Henry M., Kansas City
Hardy, John W., Shawnee Mission, Kan.
(Member Jackson County Medical Society)
Hardy, Patrick J., Florissant
Hardy, Stanton L., Desloge
Harell, Alex, St. Louis
Harford, Carl G., St. Louis
Harkins, William B., St. Louis

Harkness, Harry, Winston-Salem, N. C.
(Member Johnson County Medical Society)
Harland, Robert E., La Jolla, Calif.
(Member Mineral Area County Medical Society)
Harless, Morris S., Kansas City
Harlow, Lloyd M., Kansas City
Harmon, Ben C., Springfield
Harms, Florian L., Salisbury
Harms, James F., Nevada
Harner, Casper G., St. Joseph
Harper, Fleming B., St. Louis
Harr, Patrick B., Maryville
Harrell, Henry J., Summerfield, Fla.
(Member Dallas-Hickory-Polk-Dade County Medical Society)
Harrin, William R., Kansas City
Harris, David J., Kansas City
Harris, Hugh S., Jr., Columbia
Harris, Lanny W., Kansas City
Harris, Robert J., Columbia
Harrison, Lee B., St. Louis
Harrison, Richard L., Crestwood
Harrison, Stratton W., Springfield
Harrison, Winston E., Columbia
Hart, L. Wayne, Kansas City
Hart, William M., Columbia
Hartman, B. K., St. Louis
Hartman, Greg L., Kansas City
Hartman, Paul T., St. Louis
Hartnett, Thomas D., St. Louis
Hartstein, Jack, St. Louis
Hartwig, Frederick H., Kansas City
Hartwig, John A., St. Louis
Hartwig, Raymond W., Shawnee Mission, Kan. (Member Jackson County Medical Society)
Harvey, Harold D., Springfield
Harwell, J. Larry, St. Louis
Hartwell, J. Lester, Lubbock, Tex. (Member Butler-Wayne-Ripley-Carter County Medical Society)
Hasek, James A., Mountain Grove
Hasek, O. Martin, Mountain Grove
Hasenmueller, James J., St. Louis
Hata, Daikichi, Boonville
Hatfalvi, Bela I., St. Louis
Haun, Ronald, St. Louis
Hauser, Robert J., Jefferson City
Hausheer, Herman J., Independence
Haw, Marvin T., Jr., Columbia
Hawk, Bray O., St. Louis
Hawker, William D., St. Louis
Hawkins, Doris, Kansas City
Hawkins, George L., Jr., St. Louis
Hawkins, James C., Columbia
Hayden, M. R., Camdenton (Member Mid-Mo County Medical Society)
Hayek, Wesley E., Florissant
Hayes, Lawrence L., Kansas City
Hayes, Paul W., St. Joseph
Haynes, James W., St. Louis
Haynie, William W., Butler
Hays, Larry V., Kansas City
Hazen, Joseph, St. Louis
Hazen, Robert M., Kansas City
H'Doubler, Charles E., Springfield
H'Doubler, Francis T., Jr., Springfield
H'Doubler, Peter B., Springfield
Headrick, John A., St. Louis
Hecker, Joseph E., Poplar Bluff
Hedges, Richard C., Excelsior Springs
Heeb, Max A., Sikeston
Heideman, Milo L., St. Louis
Heibrunn, Ilse, Rolla
Heilman, Edward J., Kansas City
Heiman, Avivi, St. Louis
Heimberg, Murray, Columbia
Heimbarger, Elizabeth M., Columbia
Heimbarger, Richard A., Columbia
Heins, James N., St. Louis
Helbing, Edward J., Rio Rancho Estates, N. M. (Member St. Louis County Medical Society)
Hellerstein, Stanley, Kansas City
Hellweg, Charles E., Mt. Vernon
Hellweg, Raymond W., Florissant
Helman, Richard G., Shawnee Mission, Kans.
(Member Jackson County Medical Society)
Hemaya, Rizk M., Kansas City
Henares-Levy, L., St. Louis
Henderlite, John W., St. Louis
Henderson, T. W., Dexter
Hendin, Aaron, Olivette
Hendren, Thomas H., Liberty
Hennelly, John J., St. Louis
Henry, Clarke Latta, Kansas City
Henry, Joseph E., N. Kansas City (Member Clay County Medical Society)

Henry, Lawrence D., Columbia
 Henry, Robert D., Harrisonville
 Henschel, Eugene V., St. Louis
 Henstorf, Harold R., Columbia
 Henzel, John H., Columbia
 Her, Kyu Sook, St. Louis
 Herbert, Charles T., Cape Girardeau
 Herdoiza, Alfonso W., Kansas City
 Herfkens, Kenneth D., Springfield
 Herjanic, Marijan, St. Louis
 Herman, Allen I., St. Joseph
 Herman, Edwin M., Kansas City
 Herman, Morris, St. Louis
 Hernandez, Salvadore, St. Louis
 Herman, George V., Sunrise Beach (Member Jackson County Medical Society)
 *Herron, Robert, St. Louis
 Hershey, Falls B., St. Louis
 Hertel, Ronald C., St. Louis
 Hervey, Wm. H., II, Kansas City
 Heryer, John W., Kansas City
 Herzen, Alexander T., St. Louis
 Herzog, Godofredo M., Florissant
 Hesker, Albert E., St. Louis
 Hetlage, Louis P., Troy
 Heusler, Anton F., St. Louis
 Heutel, Lee B., St. Louis
 Hiatt, Barry A., St. Louis
 Hibbard, Blaine Z., Kansas City
 Hickcox, John P., Columbia
 Hickerson, William H., Independence
 Hickey, Glenn M., Manchester
 Hickey, James L., St. Louis
 Hicks, Robert S., St. Louis
 Higgins, Philip C., St. Louis
 Hightower, Harry G., St. Louis
 Hilbert, Paul H., St. Louis
 Hildreth, H. Rommel, St. Louis
 Hilgers, Thomas W., St. Louis
 Hill, George J., Huntington, W. Va. (Member St. Louis Medical Society)
 Hill, Jack H., Kansas City
 Hill, James E., Fulton
 Hill, Ronald T., Dexter
 Hill, XaCadene A., St. Louis
 Hilliard, Alphonso W., St. Louis
 Hillman, Richard E., St. Louis
 Hills, Joseph E., Springfield
 Hilton, Paul E., Joplin
 Hinds, Paul A., Springfield
 Hinds, R. David, Hannibal
 Hink, Frederick W., Independence
 Hironimus, John, St. Louis
 Hirsch, Joe E., Kansas City
 Hirsch, John D., St. Louis
 Hite, Dennis E., Lebanon
 Ho, Grinny H. C., Sikeston
 Hoadley, William D., Kansas City
 Hobbs, George H., Warrensburg
 Hobbs, John E., St. Louis
 Hobson, Gerald, St. Louis
 Hocht, Emmett F., Farmington
 Hodge, Robert H., Kansas City (Member Clay County Medical Society)
 Hodgson, Frank H., Kansas City
 Hoech, George P., Jr., Kansas City
 Hoelscher, Harold F., Warrenton
 Hoepfer, Samuel D., Grandview
 Hoepfer, Sam D., Jr., Grandview
 Hoffman, Jacob S., Kansas City
 Hoffmann, Alan L., Kansas City
 Hoffmann, Augustin D., St. Louis
 Hoffmann, Lee Martha, Shawnee Mission, Kan. (Member Jackson County Medical Society)
 Hoffmann, Ronald E., St. Louis
 Hoffing, Charles K., St. Louis
 Hofmeister, Roger W., Columbia
 Hofstatter, Leopold, St. Louis
 Hogan, Cornelius E., St. Louis
 Hogan, Daniel F., Brownsville, Texas (Member Jackson County Medical Society)
 Hogan, John R., St. Louis
 Hogan, Patrick A., St. Louis
 Hogan, Patrick C., St. Louis
 Hogancamp, Glenn E., Ellisville
 Hoja, W. Alexander, Poplar Bluff
 Holbrook, Charles K., St. Louis
 Holcomb, John K., Cape Girardeau
 Holder, Thomas M., Kansas City
 Holmon, R. Eugene, St. Louis
 Holland, Robert D., Springfield
 Holley, Donald B., Camdenton
 Holliday, Craig, St. Louis
 Hollinger, Lloyd A., Kansas City
 Hollingsworth, Ray S., Clinton
 Hollis, Richard W., Springfield

Hollo, Vencel W., St. Louis
 Hollocher, Richard J., Creve Coeur
 Hollweg, Kenneth C., Kansas City
 Holman, Joseph G., Kansas City
 Holmes, Daniel E., Springfield
 Holmes, David R., Springfield
 Holmes, Richard A., Columbia
 Holscher, Edward C., St. Louis
 Holt, Earl P., Jr., St. Louis
 Holt, Waldo S., Kansas City
 Holt, William E., St. Louis
 Holt, William J., St. Louis
 Holtmann, Barbel, St. Louis
 Holton, Edward B., Independence
 Holtz, Alan S., Kirkwood
 Holtz, Sumner, St. Louis
 Holtzman, Samuel, Chicago, Ill. (Member Jasper County Medical Society)
 Honaas, Trygve O., Cape Girardeau
 Hook, Waller C., Shawnee Mission, Kan. (Member Jackson County Medical Society)
 Hookerman, Bruce J., St. Ann
 Hoover, Bernard L., St. Louis
 Hoover, H. Lee, Jr., Springfield
 Hopkins, Florian G., Gideon
 Hopkins, James P., Kansas City
 Hopkins, Thomas J., Sedalia
 Hopkins, T. Spencer, Sedalia
 Horenstein, Simon, St. Louis
 Hori, Jose M., Moberly
 Horn, Paul C., Cape Girardeau
 Horner, John L., St. Louis
 Hornstra, Robijn K., Kansas City
 Horochowski, Alejandro, Columbia
 Horrillo, Emilio G., St. Louis
 Horton, James D., Springfield
 Horwitz, Irvin B., St. Louis
 Houston, Vincent T., St. Louis
 Hovadhanakul, Praphat, St. Louis
 Howden, Thomas L., St. Joseph
 Howe, Albert L., St. Louis
 Howe, Louis F., St. Louis
 Howell, Billy D., Brookfield
 Hoxworth, Gerald M., Mexico
 Hoyer, Robert C., Farmington
 Huang, Chuong Chun, Iowa City, Iowa (Member St. Louis County Medical Society)
 Huang, George, St. Louis
 Huang, Jun-Shen, Kennett
 Hubbard, Sally L., Springfield
 Hubbell, Ira G., Columbia
 Huber, Lasley E., Moberly
 Huck, Frank F., Fenton
 Huck, Richard F., St. Louis
 Huckstep, Robert A., Farmington
 Hudgens, Richard W., St. Louis
 Hudson, G. R., Moberly
 Huewe, Douglas A., Springfield
 Huffman, Thomas L., Butler
 Huggins, Albert M., St. Louis
 Hughes, Charles P., St. Louis
 Hughes, Judson M., St. Joseph
 Hughes, Michael F., Kansas City
 Hughes, Robert G., St. Louis
 Hughes, Shelby B., Clinton
 Hulbert, Bernard, St. Louis
 Hulstra, Johannes F. W., Springfield
 Hummel, Anton J., St. Louis
 Hummel, William C., St. Louis
 Humphrey, James, Mound City
 Humphreys, Edward T., Boonville
 Hungate, Carroll P., Kansas City
 Hunkele, John D., Kansas City
 Hunleth, Frank E., St. Louis
 Hunt, John L., Poplar Bluff
 Hunt, John W., Jr., Farmington
 Hunt, Robert S., Cape Girardeau
 Hunt, Thomas R., Kansas City
 Hunter, Martin P., Kansas City
 Huntington, Ione, Mt. Vernon
 Hunzicker, Warren J., Kansas City
 Huq, Md. Nasrul, Mexico
 Hurst, Wilfred W., Joplin
 Husain, Sved A., Columbia
 Huse, William J., II, Kansas City
 Hutchinson, James H., Jr., St. Louis
 Hutchinson, William B., St. Louis
 Hutto, A. Herman, St. Louis
 Hwang, Kim Won, St. Louis
 Hwang, Yung H., Carthage
 Hyatt, Robert W., Columbia
 Hyde, Lawrence L., Kansas City
 Hyman, Anna, St. Louis

I

Ide, Carl H., Columbia

Ide, Lucien W., St. Joseph
 Ikeda, Shingerasa, St. Louis
 Imes, Elvin D., Maryville
 Ingham, Walton C., Kansas City
 Inman, Max M., St. Louis
 Innocencio, Eddie C., St. Joseph
 Ippensen, John H., Springfield
 Irvin, William M., St. Louis
 Irvine, John W., Kansas City
 Irwig, Fred, Kansas City
 Isaac, Anita M., Springfield
 Isbell, Charles H., Carthage
 Ise, Frank H., N. Kansas City (Member Clay County Medical Society)
 Ishida, Yasuo, St. Louis
 Isidoro, Oscar O., Poplar Bluff (Member Dunklin County Medical Society)
 Islam, Mohammed N., St. Louis
 Ittner, George W., Jr., St. Louis
 Ivy, Henry B., Springfield
 Izmirlian, Grant, St. Louis

J

Jablonski, Raymond C., St. Charles (Member St. Louis Medical Society)
 Jackson, Edward K., Clarksville
 Jackson, Haywood R., Kansas City
 Jackson, Robert L., Columbia
 Jackson, Vernon B., Fulton
 Jacob, Karl A., Jr., St. Louis
 Jacob, Walter P., Kansas City
 Jacobs, Charles C., St. Louis
 Jacobs, Frederick A., Sun City, Ariz. (Member St. Louis County Medical Society)
 Jacobs, Morton, Kansas City
 Jacobs, Walter H., Kansas City
 Jaekle, Richard G., St. Louis
 Jaeger, Joseph N., Jackson
 Jaffe, Bernard M., St. Louis
 Jain, Savitri, St. Louis
 James, Elizabeth J. P., Columbia
 James, Otis E., Jr., Kansas City
 James, Ronald C., Columbia
 Jameson, James E., Springfield
 Janes, Donald R., Kansas City
 Janney, James G., Jr., St. Louis
 Jansen, Robert, Kansas City
 Jarosewicz, Demetrius, St. Louis
 Jarvis, Cathy C., Chesterfield
 Jatala, Tjaz A., St. Louis
 Jaudon, Joseph C., St. Louis
 Jayanandaiah, H. P., Hannibal
 Jazbi, Basharat U., Kansas City
 Jean, J. Ted, St. Louis
 Jeans, Virgil, Joplin
 Jenab, Morteza, Kansas City
 Jennett, James H., Kansas City
 Jenny, Arthur B., II, St. Louis
 Jensen, Joshua E., St. Louis
 Jham, Mohan N., St. Louis
 Jick, Sidney, St. Louis
 Jimenez, Jose, St. Joseph
 Jobe, Charles L., Jr., Springfield
 Joffe, William S., St. Louis
 Joftus, Morris, St. Louis
 Johnsgard, Larry S., Columbia
 Johnson, C. Laurence, Kansas City
 Johnson, Charles Julius, St. Louis
 Johnson, Charles S., Warrensburg
 Johnson, Dallas A., Kansas City
 Johnson, Earl W., Cape Girardeau
 Johnson, Ernest D., Cape Girardeau
 Johnson, Fritz M., Springfield
 Johnson, Gareth R. P., Kansas City
 Johnson, George A., Springfield
 Johnson, George L., Springfield
 Johnson, James S., Kansas City
 Johnson, Joseph C., Jr., Springfield
 Johnson, Joseph E., Kansas City
 Johnson, Mitchell D., Ferguson
 Johnson, Richard E., Columbia
 Johnson, Richard L., Kansas City
 Johnson, Roy, Foristell (Member St. Louis County Medical Society)
 Johnson, Thomas M., Kansas City
 Johnson, Thomas W., Kansas City
 Johnson, Warford B., Springfield
 Johnson, Warford B., II, Springfield
 Johnson, William F., Springfield
 Johnston, Glen P., St. Louis
 Johnston, Joseph L., Springfield
 Johnston, William D., Columbia
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 Jolly, William H., Mexico
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Jones, Dorothy J., St. Louis
Jones, Edna M., Clinton
Jones, Edward S., Harrisonville
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Jones, Grey, San Jose, Costa Rica C.A.
(Member St. Louis Medical Society)
Jones, Harold L., Springfield
Jones, James D., II, St. Louis
Jones, James H., St. Louis
Jones, Keith D., Warrensburg
Jones, Marion E., Kansas City
Jones, Otey S., St. Louis
Jones, Richard A., St. Louis
Jones, Samuel T., III, Kansas City
Jones, Sarah T., St. Louis
Jones, Theodore R., Kansas City
Jones, Victor, Brentwood
Jordan, Walter R., Long Beach, Calif.
(Member St. Louis Medical Society)
Joseph, Donald J., Columbia
Joseph, Harold J., St. Louis
Joslyn, Harold L., St. Louis
Jost, Charles A., Florissant
Jotte, Richard F., St. Ann
Judd, Donald, St. Louis
Judge, Walter T., Crystal City
Judy, Joseph D., Florissant
Jurgens, William G., St. Louis
Julien, Rene E., St. Louis, Ill. (Member St.
Louis Medical Society)
Jung, Christopher H., Cape Girardeau
Jung, J. Marshall, Illmo
Justus, John B., Kansas City

K

Kabir, Mohammed A., St. Louis
Kahler, Monte R., Bolivar
Kahn, Lawrence, St. Louis
Kahn, Marvin, Kansas City
Kairuz, Batolome C., St. Louis
Kaiser, George C., St. Louis
Kallenbach, Glen P., Mexico
Kamada, Tsutomu, O'Fallon
Kamakias, Nicholas, Florissant
Kamal, Waseem, Columbia
Kamenetzky, Stephen A., St. Louis
Kaminski, Donald L., St. Louis
Kaminsky, Watson W., St. Louis
Kamuran, Ozgoncu, St. Louis
Kanagawa, Harold K., Jefferson City
Kanarek, Joseph, Kansas City
*Kandalafi, Faud H., Dexter
Kandt, Ray E., Jr., Kansas City
Kane, Clyde E., St. Louis
Kang, Chang H., De Soto
Kang, Juan, St. Louis
Kang, Young M., St. Louis
Kannegiesser, Hartmut, St. Louis
Kantor, Julius M., Kansas City
Kantor, Owen, St. Louis
Kantor, Samuel, Kansas City
Kao, Ming-Shian, St. Louis
Kaplan, Alex H., St. Louis
Kaplan, Michael F., Columbia
Kappesser, Netajean B., St. Louis
Kappesser, Roland C., St. Louis
Karandjeff, Apostle D., St. Louis
Kardesch, Milton, St. Louis
Kardinal, Carl G., Columbia
Karris, Robert, St. Louis
Karl, Michael M., St. Louis
Karraker, Alvan G., Farmington
Karsh, Robert S., St. Louis
Kartus, Irving, Kansas City
Kaskie, Clifford R., St. Louis
Kass, Michael A., St. Louis
Kasten, Melvin C., Cape Girardeau
Kaft, Nicola, Kansas City
Kauffman, Ruth, Versailles
Kaufman, Andrew B., Kansas City
Kaufman, Kenneth R., St. Louis
Kaufman, Robert L., St. Louis
Kaufmann, Herbert H., Kansas City
Kaul, Philip G., Kansas City
Kaup, Chandra S., Ballwin
Kay, Billy F., Prairie Village, Kan. (Member
Jackson County Medical Society)
Kayanan, Jose C., Kansas City
Kays, Jack, St. Louis
Kays, Kenneth M., Columbia
Keairnes, Harold W., Kansas City
Keating, James P., St. Louis
Keefe, David M., St. Charles
Keefe, Lawrence W., St. Louis

* Doctor of Osteopathy.

Keeler, James E., Kansas City
Keffler, Karl L., St. Louis
Keim, John H., Cape Girardeau
Keitzer, Walter Ford, Columbia
Keller, David W., St. Louis
Keller, Louis, Clayton
Keller, Maurice J., St. Louis
Keller, Robert M., Wentzville
Kellett, John G., Webster Groves
Kelley, Gilbert B., Savannah
Kelley, Kenneth H., Poplar Bluff
Kelley, Robert W., St. Louis
Kelling, Douglas G., Overland Park, Kan.
(Member Jackson County Medical
Society)
Kelling, Jordan, Waverly
Kellogg, Aurora G., Kansas City
Kelly, James C., Springfield
Kelly, John J., St. Louis
Kelly, R. Emmet, St. Louis
Keltner, R. M., Jr., St. Louis
Keltner, R. O., Shawnee Mission, Kans.
(Member Jackson County Medical
Society)
Kendall, Charles A., Kansas City
Kendall, Forrest H., Prairie Village, Kan.
(Member Jackson County Medical
Society)
Kendall, Malcolm E., Kansas City
Kendig, John H., St. Louis
Kendis, Joseph B., St. Louis
Kennard, George K., Kansas City
Kennedy, Timothy D., Kansas City
Kenney, John D., St. Louis
Kenney, Roy E., Neosho
Kent, Bela K., Kansas City
Keohane, Mark K., St. Louis
Keown, Kenneth K., Columbia
Kernodle, Jefferson D., Kansas City
Kerr, David N., St. Louis
Kerr, Frank T., Monett
Kerr, Harold H., Kansas City
Kerr, S. Earl, Columbia
Kessler, Sheldon, Florissant
Ketterman, Grace H., Kansas City
Ketterman, Herbert L., Kansas City
Kettner, Edward G., Kansas City
Key, James S., Springfield
Key, Martin L., Ste. Genevieve
Keyes, Edward L., Clayton
Khalil, Tamer G., Springfield
Khan, A. Ghani, Arnold
Khan, Abdul R., St. Louis
Khan, Altaf Ali, St. Louis
Khan, Chung H., Waterloo, Ill. (Member
St. Louis County Medical Society)
Khan, M. Osman, Maryville
Khodadoust, Kavous, St. Louis
Kieffer, Victor B., Jr., Kirkwood
Kielar, Richard A., Fort Leonard Wood
Kiene, Richard H., Kansas City
Kienzle, Edward C., St. Louis
Kilburn, Kaye H., Columbia
Kilker, Clarence H., Normandy
Kilker, Donald E., Normandy
Killebrew, David S., St. Louis
Killen, Duncan A., Kansas City
Kilo, Charles, St. Louis
Kim, Chung Ki, St. Louis
Kim, Jong Ku, St. Louis
Kim, Longius, Rivermines
Kim, Moon Young, St. Louis
Kim, Yong W., Cape Girardeau
Kimball, Ireland W., Kansas City
Kimball, Merritt H., Kansas City
Kimberlin, Herbert C., Trenton
Kimble, Harvey S., Kansas City
Kimmelman, Nathan, St. Louis
Kinder, Doyle D., Springfield
Kinder, James A., Cape Girardeau
Kinder, Jerry L., Cape Girardeau
Kindred, Lynn H., Kansas City
King, Elbert R., Boise, Idaho (Member
West Central Missouri Medical Society)
King, Eustace E., III, St. Louis
King, Francis C., Kirkwood
King, J. Tenbrook, Kansas City
King, James P., St. Louis
King, John V., Jr., Manchester
King, John V., St. Louis
King, Morris K., St. Louis
King, Phillip E., Liberty
King, Richard H., Clinton
King, Robert J., Columbia
Kingsbury, Helen, Shawnee Mission, Kan.
(Member Jackson County Medical
Society)
Kingsbury, Robert J., St. Charles
Kingsland, Robert C., St. Louis

Kinney, Sam E., St. Louis
Kinsella, Edward D., Richmond Heights
Kinsella, Peter W., St. Louis
Kinsella, Ralph A., Jr., St. Louis
Kinzie, Jeannie J., Sherwood, Wis.
(Member St. Louis Medical Society)
Kipfer, Robert E., Springfield
Kipnis, David M., St. Louis
Kirkland, Jerry A., Kansas City
Kirkman, Robert E., Joplin
Kirstein, Melvin B., St. Louis
Kissane, John M., St. Louis
Kister, George E., St. Charles
Kistler, Walter D., Jr., St. Louis
Kistner, William F., St. Louis
Kitchen, William M., Kansas City
Kiyancilar, Mehmet E., Farmington
Klaus, Hanna, Wichita, Kan. (Member St.
Louis Medical Society)
Klebba, Larry B., Jefferson City
Klein, Arnold G., St. Louis
Klein, Bert H., St. Louis
Klein, Edward H., Prairie Village, Kan.
(Member Jackson County Medical
Society)
Klein, Saul J., St. Louis
Kleinschmidt, Clinton, St. Louis
Klenk, Charles L., St. Louis
Kline, Carlyn M., St. Joseph
Kline, Edmund W., St. Joseph
Klingner, George M., Springfield
Klingner, George M., Jr., Springfield
Klinkerfuss, George H., Springfield
Klippel, Allen P., St. Louis
Klippel, Bernhardt W., St. Louis
Kloecker, Richard J., St. Ann
Kloecker, Robert P., St. Louis
Knabb, Henry F., Jr., Springfield
Knabb, Kenneth E., Springfield
Kneal, E. Ellsworth, St. Louis
Kneibert, Fred L., Poplar Bluff
Knepper, Paul A., St. Joseph
Knight, F. P., Florissant
Knight, Lyle B., Lee's Summit
Knight, William A., Jr., St. Louis
Knipschild, Bedford F., Marshall
Knoch, H. Kermit, Kansas City
Knock, Henry L., Kirkwood
Knopf, Harry S. L., St. Louis
Knowles, R. R., St. Louis
Knowlton, Norman P., Jr., St. Louis
Kobbermann, Kobby J., Springfield
Koch, Robert E., Clayton
Kodner, Ira J., St. Louis
Koehler, George A., St. Louis
Koehler, John W., Joplin
Koenig, Marvin I., Florissant
Koerner, Kenneth A., St. Louis
Kohler, Louis H., St. Louis
Koldys, Kenneth W., Cape Girardeau
Kolker, Allan E., St. Louis
Kolodny, Robert C., St. Louis
Kolze, Vernon W., Springfield
Konzelmann, John A., St. Louis
Koon, Ben H., Kansas City
Koontz, Paul C., Kansas City
Kopman, Ercument A., St. Louis
Kopp, Leonard J., St. Louis
Kopperman, Mordecai, Kansas City
Koppers, Lawrence E., Kansas City
Korenblat, Phillip E., St. Louis
Korn, Robert L., Clayton
Korth, William M., Sarasota, Fla. (Member
Jackson County Medical Society)
Kotner, Lawrence M., University City
Kovac, Albert P., Kansas City
Kovac, S. Robert, St. Louis
Kowert, Edward H., St. Louis
Kraeger, Russell, St. Louis
Kraetsch, Robert, St. Louis
Kraft, Jacob, Kansas City
Krahn, Henry C., Springfield
Kraner, Justin F., University City
Kranson, Seymour J., Independence
Kratz, Paul E., Cape Girardeau
Kraus, Fredrick T., St. Louis
Krause, G. Lynn, Jr., St. Louis
Krebs, Joseph M., St. Louis
Krewet, Frank A., III, St. Louis
Krishnasamy, Brarath A., St. Louis
Kroeger, George B., Jr., St. Louis
Krojanker, Rolf, St. Louis
Kromer, Charles, St. Louis
Kronemer, Norton S., St. Louis
Krupin, Barbara R., St. Louis
Krupin, Theodore, St. Louis
Kruse, Carl R., Palmyra
Kuangparichat, Manoch, Lexington

Kubin, Milford T., Pacific Grove, Calif.
(Member Boone County Medical Society)
Kuczer, Arnold, St. Louis
Kuebrich, Thomas C., Ferguson
Kuenzi, Donald E., Kansas City (Member
Clay County Medical Society)
Kuhlman, Ralph, St. Louis
Kuhlman, Robert E., St. Louis
Kuhn, John R., Jr., Joplin
Kuhn, Nobuko O., St. Louis
Kuhn, William F., II, Kansas City
Kulak, Gary, St. Louis
Kulkamthorn, S., St. Louis
Kulkamthorn, Spripatt, Maryland Heights
Kulowski, Jacob, St. Joseph
Kumar, Hanumanthu V., St. Louis
Kunawongsa, Nit, St. Louis
Kunz, Harold G., Jr., St. Louis
Kunz, Roger D., Columbia
Kuo, Gong Ten, Sikeston
Kurtz, Karl J., Kansas City
Kusama, Haruo, St. Louis
Kutryb, Walter J., Florissant
Kuttner, Marianne, St. Louis
Kuyakanon, W., St. Louis
Kwan, Vincent W., Potosi (Member St.
Louis County Medical Society)
Kwon, Yongsoo, Hannibal
Kyaw, Myo M., St. Louis
Kyger, John E., Independence

L

Laatsch, Robert H., Poplar Bluff
Lababidi, Zuhdi, Columbia
Lachance, Leopold, Centralia
Lackey, John, Sedalia
Lacson, Leticia D., Chesterfield
Lacy, Paul E., St. Louis
Ladd, Charles B., St. Louis
Ladenson, Roland P., Columbia
LaDriere, Raymond J., Creve Coeur
Ladyman, George H., Poplar Bluff
LaFerriere, Keith A., St. Louis
LaHue, William C., Lexington
Laird, John M., Jr., Florissant
Laks, H., St. Louis
Lally, James J., Kansas City
Lam, Albert, St. Louis
Lam, Robert L., St. Louis
Lamar, Robert F., Kansas City
Lamb, Wanda, St. Louis
Lambert, Marian, Daytona Beach, Fla.
(Member Jackson County Medical
Society)
Lamberti, Joseph, Columbia
Lambie, Rodger W., Kansas City
Lampros, William P., St. Louis
Lamy, John E., Elizabeth City, N. C. (Mem-
ber Pettis County Medical Society)
Landau, William M., St. Louis
Landers, Burnell, Kansas City
Landhuis, L. R., Columbia
Landis, George K., Kansas City
Landry, J. Hubert, St. Louis
Lane, Clinton W., St. Louis
Lane, Daniel K., St. Louis
Lang, John J., St. Louis
Lange, Adolph C., St. Louis
Langenbach, Alfred M., Ladue
Langevin, Jack, West Plains
Langlois, Paul J., St. Louis
Langston, Walter R., Springfield
Lanier, Earl W., Florissant
Lankford, Harold D., Mexico
Lanning, R. James, N. Kansas City (Member
Clay County Medical Society)
Lanning, Robert J., Hannibal
Lansangan, Isais, Arnold (Member St. Louis
Medical Society)
Lansche, W. Edward, St. Louis
Lapi, Angelo, Shawnee Mission, Kan.
(Member Jackson County Medical
Society)
Lapp, Harry C., Lee's Summit
Larocca, Felix E. F., St. Louis
Larsen, Kenneth V., St. Louis
Larsen, Virginia, St. Louis
Larsen, William E., Kansas City
Larson, Paul U., St. Louis
Latham, Kenyon S., California
Latham, Raymond W., Kansas City
Latimer, Walter N. A., Kansas City
(Member Clay County Medical Society)
Lattinville, Henry E., Florissant
Lau, Luis, St. Louis
Lauer, Joseph J., St. Louis
Lauer, Daniel J., Kansas City
Lauer, John D., St. Louis
Laux, France A., St. Louis
Lawrence, George H., St. Louis
Lawrence, John R., Marshall
Lawton, John T., St. Louis
Lawton, Lawrence M., St. Louis
Layle, John K., Jr., Kansas City
Layton, Ira C., Kansas City
Leach, Wilfred, St. Louis
Leary, Daniel J., Jr., St. Louis
LeBlanc, Leo J., St. Louis
L'Ecuier, Jerome L., St. Louis
Lederer, Charles M., Warrensburg
Lee, Carleton H., St. Joseph
Lee, Duk S., Chesterfield
Lee, Ernesto Y., Potosi
Lee, Fransiska, St. Louis
Lee, Gerald B., Kansas City
Lee, Henry A., Kansas City
Lee, In Kook, Washington
Lee, Jong Doo, Havana, Ill. (Member St.
Louis Medical Society)
Lee, Kil Soo, Jennings
Lee, King Ying, Kansas City
Lee, Larry, Kansas City
Lee, Sung Ae, Tulsa, Okla. (Member Boone
County Medical Society)
Lee, Tae Hung, Kansas City
Leech, Charles A., Columbia
Leech, Maurice P., Fayette
Leeper, Claude K., Columbia
Leeper, Sidlee W., Columbia
Le Fevre, Philip J., Springfield
Legan, John K., Kennett
Lehman, Philip C., St. Joseph
Lehner, Richard L., Kansas City
Lehr, James L., Columbia
Leidinger, Karl J., Republic
Leifer, William W., Kansas City
Leightner, William, St. Louis
Leming, Bert H., St. Louis
Lemmon, George B., Jr., Springfield
Lenobel, Milton I., Clayton
Lentz, Clark H., Kansas City
Lentz, Harold C., Neosho
Leo, William A., Kansas City
Leone, Philip, St. Louis
Leonhardt, Erwin M., St. Louis
Leonidas, John C., Boston, Mass. (Member
Jackson County Medical Society)
Leroux, Gene H., Doniphan
Lerwick, Everett R., St. Louis
Leslie, Charles H., Kirkwood
Leslie, James T., Jr., Jefferson City
Leslie, Stephen A., Kansas City
Lestmann, Henry E., Doniphan
Levey, Harry B., Kansas City
Levin, Marvin E., St. Louis
Levitt, Joseph, St. Louis
Levitt, Robert, St. Louis
Levy, Irwin, St. Louis
Levy, Jerome F., St. Louis
Levy, Morton A., St. Louis
Lewellen, Charles H., Louisiana
Lewin, Wilbur H., St. Louis
Lewis, Charles R., St. Louis
Lewis, James A., Joplin
Lewis, James E., Jr., St. Louis
Lewis, Noel R., Strafford
Lewis, Revis C., Kansas City
Leydig, Stanley M., St. Louis
Liang, Howard S., St. Louis
Liang, Jing C., Independence
Liao, Kun T., St. Louis
Lichter, Alexander, Kansas City
Lichter, Joseph M., Kansas City
Lichty, Charles A., Shelby
Lieb, Francis X., St. Louis
Lieberman, David M., St. Louis
Lila, Aram, Excelsior Springs
Lilly, Douglas R., St. Louis
Lim, Il Taik, St. Louis
Lim, Jet Kim, Columbia
Limpatakmonkol, P., Des Peres
Limpiphaphat, Dhajphone, Perryville
Limpiphaphat, Ester, Perryville
Lin, Chi-Hsi, Springfield
Lin, Tai-Sun, St. Louis
Lindberg, Donald, Columbia
Lindeman, Carl H., St. Louis
Lindeman, John, Ballwin
Linder, Howard E., St. Louis
Lindgren, Carleton J., Kansas City
Lindquist, Carl N., Reeds Spring (Member
Jackson County Medical Society)
Link, Alexander J., St. Louis
Link, Vance E., Independence

Lins, Robert D., Chesterfield
Linsenmeyer, Charles M., St. Charles
Linville, Howard E., Kansas City
Lipschitz, Ervin, St. Louis
Lipsitz, Ellis S., St. Louis
Lischer, Carl E., St. Louis
Liss, Jay Lawrence, St. Louis
Lissner, Arthur B., O'Fallon
Liston, Stephen L., Kansas City
Little, Monroe H., St. Louis
Littlejohn, Robert T., N. Kansas City
(Member Clay County Medical Society)
Littmann, Lewis E., St. Louis
Littton, Lyle D., Springfield
Littton, Lynn O., Columbia
Litwiller, R. W., Columbia
Litzow, Louis T., St. Louis
Livingston, Don, St. Louis
Lloyd, Ivan E., Kansas City
Lockhart, Charles E., Springfield
Lockwood, Gary F., Kansas City
Lodwick, Gwilym S., Columbia
Loeb, Richard H., Springfield
Loeb, Virgil, Jr., St. Louis
Loeffel, Ellen S., St. Louis
Logie, MacDonald B., St. Louis
Logue, John T., Columbia
Lohmar, Roland E., Columbia
Lohr, Robert W., St. Louis
Lohrentz, Lois H., Shawnee Mission, Kan.
(Member Jackson County Medical
Society)
Loitman, Bernard, St. Louis
Londe, Alan M., St. Louis
Londe, Sol, St. Louis
London, Stanley L., St. Louis
Lonergan, Warren M., St. Louis
Long, Curtis W., Butler
Long, David S., Harrisonville
Long, Frank B., St. Louis
Long, R. Stacy, Kansas City
Longenecker, Joe L., Joplin
Longo, D. V., Lebanon
Lonsway, Maurice J., St. Louis
Longway, Maurice J., Jr., St. Louis
Lopansri, S., St. Louis
Lopez-Plata, Roberto, Kansas City
LoPiccolo, Vincent J., St. Louis
LoPiccolo, Vincent J., Jr., St. Louis
Lord, Richard E., Kirkwood
Lorenc, Ernest, Springfield
Lorenzo, Edilberto B., Kansas City
Lorenzo-Medina, Remedios, Kansas City
(Member Clay County Medical Society)
Lottes, James O., St. Louis
Lotuaco, Gamaliel G., Kansas City
Loughhead, John R., Poplar Bluff
Loutzenhiser, James K., Kansas City
Lovett, Robert L., Springfield
Lovinggood, Thomas A., Cape Girardeau
Lowe, Alvin L., Sedalia
Lowe, Horace A., Jr., Springfield
Lowell, Paul, Kansas City
Lowenstein, Paul S., St. Louis
Lowther, Gerald S., Chesterfield
Loyd, Earl L., Holts Summit (Member Cole
County Medical Society)
Loynd, Robert C., St. Louis
Lucas, Fred V., Columbia
Lucas, G. Elden, St. Louis
Lucido, Joseph L., St. Louis
Luckenbill, Paul T., Plattsburg
Luechtefeld, Frank, Kirkwood
Luedde, Philip S., St. Louis
Luehrs, Robert O., St. Louis
Lugo, Samuel, St. Louis
Luh, Andrew, St. Louis
Lum, Jon Tek, St. Louis
Lund, Herluf G., St. Louis
Lund, Robert H., St. Louis
Lundgren, Fred H., Jr., Kansas City
Lundman, Hugh, Springfield
Lurie, Harold H., Springfield
Lusk, Charles A., Jr., Butler
Luther, George A., Kirkwood
Lutkevitt, Joseph F., Ste. Genevieve
Lutz, Martin H., St. Louis
Luzucky, Michael H., Springfield
Lyddon, Harold R., Jr., Kansas City
Lyle, Robert R., Versailles
Lyman, Edward H., St. Louis
Lynch, Thomas W., Springfield
Lynxwiler, Chester P., St. Louis
Lyss, Carl, St. Louis
Lyss, Stanley B., Clayton
Lytle, Garnet C., St. Louis

* Doctor of Osteopathy.

Mc

McAdam, Charles R., St. Louis
McAfee, C. Alan, St. Louis
McAfee, R. Gordon, Kansas City
McAlhany, Howard J., Springfield
McAlister, William H., St. Louis
McAnelly, George C., Kansas City
McArtor, Thomas R., Browning
McBurney, Charles A., Slater
McCaffree, Mary K., Jefferson City
McCall, Edwin L., Kimberling City
(Member St. Louis County Medical Society)
McCalla, John P., Kansas City
McCallister, Ben D., Kansas City
McCann, Louis P., Nevada
McCanse, Andrew, Kansas City
McCanse, Lynn R. A., Kansas City
McCarthy, John M., St. Louis
McCarty, Michael, St. Louis
McCaughan, John M., St. Louis
McClanahan, Robert C., Kansas City
McClelland, Bruce A., Columbia
McCloskey, R. Bruce, St. Louis
McCluer, Shirley, Columbia
McCluggage, Newton C., Kansas City
(Member Clay County Medical Society)
McClure, David N., St. Louis
McClure, James N., Jr., St. Louis
McConahay, David R., Kansas City
McConchie, James E., Independence
McConnell, Robert G., Seattle, Wash.
(Member St. Louis Medical Society)
McCool, James F., Jr., St. Louis
McCord, E. Scott, Columbia
McCorkle, E. Lee, Marshall
McCormick, James E., Kansas City
(Member Clay County Medical Society)
McCormick, John R., Boston, Mass.
(Member St. Louis Medical Society)
McCown, Allan H., Kirkwood
McCoy, Frederick J., Kansas City
McCoy, Warren R., Caruthersville
McCraw, Doyle C., Bolivar
McCrav, Glen M., Kansas City
McCrea, William A., Springfield
McCullough, Campbell C., Kansas City
McDaniel, John R., St. Joseph
McDermott, Alfred E., Pertyville
McDonald, Eugene F., Jackson
McDonald, Herbert L., Kansas City
McDonald, Wallace, St. Joseph
McDonald, Wilbur P., St. Joseph
McDonnell, John F., Kansas City
McDonough, John, St. Louis
McElroy, Glenn L., Columbia
McFadden, Gene A., Waverly
McFarland, H. Richard, Kansas City
McFarland, Morris D., Kansas City
McGannon, Paul T., Kansas City
McGinnis, Byron J., St. Louis
McGinnis, William F., St. Louis
McGinty, Charles P., Cape Girardeau
McGonigle, James P., Joplin
McGonigle, Michael M., Joplin
McGuire, Thomas H., Kansas City
McHaney, John W., Jefferson City
McIntosh, Donald E., Kansas City
McIntyre, John D., Kansas City
McKaskle, Clarence W., Caruthersville
McKee, Howard B., Poplar Bluff (Member Jasper County Medical Society)
McKee, Oliver A., Kirkwood
McKee, Wallace P., Kansas City
McKeel, Thomas B., Kansas City
McKinney, Joseph K., St. Louis
McKinsey, John J., Springfield
McKnelly, William V., Jr., Kansas City
McLane, Jerry F., Poplar Bluff
McLaughlin, Kathleen, St. Louis
McLaughlin, Richard D., Springfield
McLean, Royal C., St. Louis
McLeod, John, Kansas City
McMillan, Thomas E., Kansas City
McMurray, Herbert C., Manchester
McNabney, W. Kendall, Kansas City
McNalley, Michael, St. Louis
McNamara, John J., Richmond Heights
McNeel, Lee A., Jr., Greenfield
McPhee, William R., Kansas City
McPheeters, James W., Poplar Bluff
McPike, Lloyd H., Joplin
McQueen, Samuel, Creve Coeur
McSwiney, John G., St. Louis

McVay, James R., Kansas City

M

Maben, Sam Edward, Kansas City
Macaulay, Bernard J., Doniphan
MacDonald, Robert R., Jr., St. Louis
Macdonald, William C., St. Louis
Macdonnell, Thomas M., Marshfield
MacGee, Edwin E., Kansas City
Machek, Otakar, St. Louis
MacInnis, Florence E., Kansas City
MacKaman, Bert J., Columbia
MacLaughlin, James C., Joplin
Macleod, Angus, St. Louis
MacNaughton, Ralph E., Blue Springs
MacNaughton, Robert A., Leawood Kan.
(Member Jackson County Medical Society)
Macnish, James M., St. Louis
Maddox, Albert R., Sedalia
Maddux, William P., Springfield
Madrid, Dominador, St. Louis
Magaletta, George E., Cape Girardeau
Magee, Robert L., El Dorado Springs
Magee, William E., St. Louis
Magill, Joseph S., Morenci, Ariz. (Member Grand River Medical Society)
Maginn, R. Reilly, St. Louis
Maginn, Richard L., St. Joseph
Magness, Guv N., University City
Magness, William C., Nevada (Member Ozarks Medical Society)
Magruder, L. M., Nevada
Mahboubi, Aziz Olla, Sikeston
Mahe, George A., St. Louis
Maher, Robert W., Springfield
Maher, Thomas F., St. Louis
Maizoub, Hish S., Joplin
Malik, Sarfraz A., St. Louis
Mallouk, Alexander G., Kansas City
Mallow, James E., Kansas City
Maloney, Robert M., St. Louis
Malt, Sherwin H., St. Louis
Maminta, Napoleon S., Chesterfield
Manalo, Gil B., Jr., Carthage
Manansala, Antonio Q., St. Louis
Mandler, George, Chillicothe
Manes, Jose, St. Louis
Manganaro, Frank I., St. Louis
Mangels, Kenneth A., Independence
Manion, Maria E., St. Louis
Manion, Peter J., St. Louis
Manion, Thomas S., Independence
Manley, Charles B., Jr., St. Louis
Manley, Joseph W., Overland Park, Kans.
(Member Jackson County Medical Society)
Mann, Elizabeth, St. Louis
Mann, James K., Hannibal
Manske, Paul R., St. Louis
Mantell, Jack M., Springfield
Mantovani, John, Jr., St. Louis
Manuel, Louis C., Kansas City
Maple, Francis M., Springfield
Maranan, D. L., Kirkwood
Maravilla, Levv M., St. Louis
Maravosky, Jose A., St. Louis
Marco, Philip J., Columbia
Marcus, Morris D., St. Louis
Mardini, Edward E., Bonne Terre
Margolis, Richard M., St. Louis
Marienfeld, Carl J., Columbia
Markel, Arthur D., Poplar Bluff
Markivee, Carroll R., Columbia
Marks, Mark M., Kansas City
Marks, Maurice I., Kansas City
Marmor, William A., St. Louis
Mars, Hartley F., Forsyth
Marsh, Alice, Pleasant Hill
Marshall, Cameron F., Kansas City
Marshall, Hal E., Kansas City
Marshall, William G., Glasgow
Marston, F. James, Jr., St. Joseph
Martel, Dominique, St. Louis
Martin, Andrew D., Sikeston
Martin, Clarence A., Joplin
Martin, Clyde V., Kansas City
Martin, Daniel J., St. Louis
Martin, David S., St. Louis
Martin, Frederick W., Jr., St. Louis
Martin, J. Barlow, St. Louis
Martin, James M., St. Louis
Martin, John N., St. Joseph
Martin, Philip L., Crestwood
Martin, Thomas F., Granite City, Ill.
(Member St. Louis Medical Society)
Martin, W. Joe, Louisiana

Martinez, Armando, St. Louis
Martz, John C., St. Louis
Mason, Wayne E., Kansas City
Massie, Edward, St. Louis
Masters, Edwin J., Sikeston
Masters, William H., St. Louis
Massucci, Joseph M., Kansas City
Mathew, M. S., Chesterfield
Mathew, Ruby R., St. Louis
Mathews, Robert, Shawnee Mission, Kan.
(Member Jackson County Medical Society)
Matteson, Frank B., Grant City
Matthews, John G., St. Louis
Matthews, John I., Jefferson City
Maughs, Sydney B., St. Louis
Max, Paul F., Clayton
Maxey, Hugh W., Springfield, Ill. (Member Cole County Medical Society)
Maxson, T. Reed, Warrensburg
Maxwell, Richard W., St. Louis
May, Albert L., Jr., Poplar Bluff
Mayer, John H., Jr., Kansas City
Mayer, Robert A., St. Louis
Mayer, William D., Columbia
Mayfield, James L., Crystal City
Mayfield, Ross, St. Louis
Mays, Frank G., Washington
Mayuga, Edgardo, St. Louis
Mayuga, Laureano G., Cabool
Maza, Jose G., St. Louis
Meador, James R., St. Louis
Meadows, C. Douglas, St. Louis
Medler, John F., St. Louis
Medler, P. Louis, St. Louis
Medlicott, William J., Kansas City
Medrano, Crescenciano A., St. Louis
Medrano, Lina Ebro, St. Louis
Meegan, Robert J., Kansas City
Mehan, Donald J., St. Louis
Mehra, Ravinder B., St. Louis
Mehra, Usha, St. Louis
Mehta, Satish K., Kansas City
Meier, Francis X., Jefferson City
Meiklejohn, Duncan C., Independence
Meinberg, William H., St. Louis
Meiners, Paul N., St. Louis
Meiners, Theodore M., St. Louis
Meinershagen, Charles W., Jefferson City
Mejia, Hugo, Miami, Fla. (Member St. Louis Medical Society)
Melgaard, S. Ross, Kansas City
Melick, William F., St. Louis
Mell, Roger L., St. Louis
Melson, G. Leland, St. Louis
Menchetti, Don E., Springfield
Mencias, Cristeta B., St. Louis
Mendelsohn, George S., St. Louis
Mendelsohn, Robert S., St. Louis
Mendelson, David F., St. Louis
Mendez, Manuel M., St. Louis
Mendez, Manuel F., Ballwin
Mendonsa, Lawrence E., St. Louis
Meneses, Orlando G., St. Louis
Menne, Marvin G., Ironton
Mentgen, Carl N., Springfield
Merenda, Sam J., St. Louis
Merideth, Mary Jane, Cassville
Meriwether, Don R., St. Joseph
Merrims, Theodore, St. Louis
Merritt, Burch A., St. Louis
Merveille, Octave C., Kansas City
Merz, Jean J., Creve Coeur
Mestres, Hugh M., St. Louis
Metz, Charles O., St. Louis
Metzl, Kurt, Kansas City
Meyer, Herman M., University City
Meyer, James E., Manchester
Meyer, Jay, Clayton
Meyer, Jerry L., Concordia
Meyer, John C., Columbia
Meyer, John S., St. Louis
Meyer, Melvin E., St. Louis
Meyer, Paul W., Kansas City
Meyers, David S., Columbia
Meyers, Elsie F., St. Louis
Meyers, Harold L., Kansas City
Meyers, Jerry, St. Louis
Meyers, John B., Clayton
Meyers, Robert W., St. Louis
Mezera, Raymond A., St. Louis
Michael, Harvey R., Springfield
Michael, Kenneth D., St. Louis
Michael, Vernon E., St. Louis
Michaelree, John F., St. Louis
Miciano, Ruel T., Buckner
Middleton, Jerry N., St. Louis

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- Middleton, John W., Louisiana
Mier, Thomas M., St. Louis
Milder, Benjamin, St. Louis
Miles, George O., Kansas City
Miles, Glenn E., Mt. Dora, Fla. (Member Pike County Medical Society)
Miles, Paul W., St. Louis
Milgram, Byron A., Kansas City
Mill, William B., Jr., St. Louis
Millangue, Consolacion P., St. Louis
Milangue, Rafael M., St. Louis
Miller, Charles, Jr., Kirkwood
Miller, Clinton L., Lee's Summit
Miller, Clyde S., Waynesville
Miller, D. Herbert, Tulsa, Okla. (Member Cbariton-Macon-Monroe-Randolph County Medical Society)
Miller, David V., Poplar Bluff
Miller, Edward J., St. Louis
Miller, Geoffrey, W., St. Louis
Miller, Gerald L., Kansas City
Miller, James E., St. Louis
Miller, James R., St. Louis
Miller, Jule P., Jr., St. Louis
Miller, Lawrence H., Kansas City
Miller, Leroy J., Columbia
Miller, Max I., Prairie Village, Kan. (Member Jackson County Medical Society)
Miller, Norman C., St. Louis
Miller, Robert N., St. Louis
Miller, William V., St. Louis
Miller, Wilson H., Kansas City
Millikan, Larry E., Columbia
Milne, J. L., Springfield
Milstead, Kenneth L., Jr., Cbevy Chase, Md. (Member St. Louis Medical Society)
Milster, Clyde R., St. Louis
Miltnerberger, Paul C., Kennett
Minnigerode, Lana K., Kansas City
Minnigerode, Turner L., Kansas City
Minnihan, Robert W., Chesterfield
Minton, Robert S., St. Joseph
Mirbaha, Mitchell M., St. Louis
Mishkin, Marvin R., St. Louis
Miskovsky, Emil F., St. Louis
Missey, Wilburn C., Jr., St. Louis
Mistry, Tehmtom S., St. Louis
Mitchell, Andrew D., Kansas City
Mitchell, Eugene, St. Louis
Mitchell, Franklin L., Columbia
Mitchell, John D., Kansas City
Mitchell, Lynn D., Columbia
Mitchell, Robert H., Kansas City
Mitchell, Roy E., Salem
Mitchell, Thomas J., St. Clair
Mithen, Francis A., St. Louis
Mitra, Nirmal K., Kansas City
Mixon, William C., Kansas City
Modjtehed, M. H., St. Louis
Moellenboff, Robert W., Washington
Moeller, F. Delbert, St. Louis
Moen, Berwyn H., St. Joseph
Molden, Charles A., Normandy
Monaf, William W., Jr., St. Louis
Monat, Seymour, St. Louis
Monroe, C. Dean, Columbia
Monta, Mande D., St. Joseph
Montani, Charles, St. Louis
Montellano, Arturo H., Monett
Montello, Samuel A., Kansas City
Montes, Arturo C., St. Louis
Montes-de-Oca, Julio, St. Louis
Montgomery, Austin F., St. Louis
Montgomery, Gordon J., St. Louis
Montie, Joseph E., Columbia
Moolsintong, P., St. Louis
Moon, Agnes H., Columbia
Moon, Thomas R., Jr., St. Louis
Mooney, Justin L., Shawnee Mission, Kan. (Member Jackson County Medical Society)
Mooney, Marcel L., Kansas City
Moore, Alva, St. Louis
Moore, De Armond, Springfield
Moore, Harry C., St. Louis
Moore, Harry C., Jr., St. Louis
Moore, Jack D., Kansas City
Moore, Robert A., Kansas City
Moore, Walter L., St. Louis
Morales, Julio, St. Louis
Moran, Thomas M., St. Louis
Moranville, Benedict A., Columbia
Moreano, Armando H., Kansas City
Morehead, William E., Malden
- Morest, F. Stanley, Stuart, Fla. (Member Greene County Medical Society)
Morgan, David B., Kansas City
Morgan, Harry C., St. Louis
Morgan, Philip E., Columbia
Morgan, Stephan S., St. Louis
Morgan, Troy O., Jr., Albany
Morgan, W. Thomas, Jr., West Plains
Morgan, William R., Kansas City
Moritz, Gerald W., St. Louis
Morley, Louise A., Shawnee Mission, Kan. (Member Jackson County Medical Society)
Moroney, Jean M., Kansas City
Morrin, Kevin C., St. Louis
Morris, Alan H., St. Louis
Morris, Harvey E., St. Louis
Morris, Joseph H., Jr., Kansas City
Morris, Mary E., St. Louis
Morrison, Arlen, St. Louis
Morrison, Donald H., Shawnee Mission, Kan. (Member Jackson County Medical Society)
Morrison, J. Scott, Kansas City
Morrison, T. A., Aurora
Morse, John P., St. Joseph
Morse, Marvin, St. Joseph
Mortensen, Frede, St. Louis
Morton, Paul C., Springfield
Morton, Wayne L., Osceola
Mosbacher, Hugh E., Independence
Mosby, Larry Dee, Columbia
Moseley, F. Thomas, Springfield
Moses, Robert A., St. Louis
Mosquera, Jaime, Florissant
Moss, Paul, Kansas City
Mothershead, John L., St. Joseph
Motzel, Albert J., St. Louis
Mou, Bin, Nevada
Mountjoy, Grace S., Clayton
Mowrer, Marie O., St. Louis
Mowrey, William O., Jennings
Muckerman, Richard I. C., St. Louis
Mudd, J. Gerard, St. Louis
Muelheims, Gerhard H., St. Louis
Mueller, Adolph R., Jr., Joplin
Mueller, Clarence E., Creve Coeur
Mueller, Joseph A., St. Louis
Mueller, Martin J., Kansas City
Mueller, Morris A., San Antonio, Tex. (Member St. Louis Medical Society)
Mueller, Robert, St. Louis
Mueller, Robert J., St. Louis
Mueller, Wilbur K., St. Louis
Muench, Albert H., St. Joseph
Muenster, Vincent P., St. Charles
Muhm, Harvard Yale, St. Charles
Mujumdar, S. P., Lindenwold, N. J. (Member St. Louis Medical Society)
Mujumdar, S. S., Lindenwold, N. J. (Member St. Louis Medical Society)
Mullarky, Wilbur A., Chesterfield
Mullen, Jack, Bonne Terre
Mullen, Leo M., Kansas City
Mullen, Mary E., Mexico
Mulligan, Charles, St. Joseph
Mulligan, Leo V., St. Louis
Mullinax, Orr, St. Joseph
Mullins, Bernard L., N. Kansas City
Mullins, John E., St. Louis
Mullins, Maurice F., Columbia
Mundy, William L., Kansas City
Murney, Joseph A., Washington
Muro, F. Del, Kansas City
Murphy, Bernard L., Hannibal
Murphy, George E., St. Louis
Murphy, James J., Kansas City
Murphy, James P., St. Louis
Murphy, John C., Clayton
Murphy, Michael G., Belleville, Ill. (Member St. Louis Medical Society)
Murphy, Robert J., Kansas City
Murphy, William A., St. Louis
Murray, John P., St. Louis
Murray, Wilber L., Kansas City
Muschany, Norman K., St. Louis
Musgrave, David E., Excelsior Springs
Mussell, Howard L., Columbia
Muth, Robert G., Kansas City
Myers, Andrew L., Kansas City
Myers, Carl M., Kansas City
Myers, David W., Jr., Smithville
Myers, Gary H., St. Louis
Myers, George H., Kansas City
Myers, Ivan T., St. Louis
Myers, James M., Rolla
Myers, John S., Kansas City
- Myers, Robert M., Kansas City
- N**
- Nagi, Kamal, St. Louis
Nahm, Chung Chick, St. Louis
Naime, Mansour J., Kansas City
Naini, Mansoor G., Kansas City
Nakada, James R., St. Louis
Nalagan, Marcos C., St. Louis
Napper, Marvin L., Springfield
Naryka, Joseph J., St. Louis
Naseer, Raiz A., St. Louis
Nash, Helen E., St. Louis
Nathan, Lester J., St. Louis
Navarro, Manuel I., Columbia
Navato, Jose, Manchester
Near, David M., Florissant
Neblett, Lewis M., Springfield
Neeld, Elise, St. Louis
Nelson, Bentley A., Kansas City
Nelson, David E., Springfield
Nelson, J. Roger, St. Louis
Nelson, James S., Clayton
Nemec, Edward S., St. Louis
Nemec, Stanley S., St. Louis
*Nemer, Robert J., Vienna (Member Cole County Medical Society)
Ness, Carl K., St. Joseph
Nesselrode, John H., Independence
Nester, Charles A., St. Louis
Neu, Leo T., Jr., Springfield
Neubeiser, Ben L., Ft. Lauderdale, Fla. (Member St. Charles-Lincoln County Medical Society)
Neukom, George B., Farmington
Neumann, James W., Kansas City
Newcomb, Arthur D., Lamar (Member Mineral Area County Medical Society)
Newman, Matthew, St. Louis
Newman, Percy, St. Louis
Newman, Robert L., Kansas City
Newmark, Leonard N., St. Louis
Newport, Gerald, St. Louis
Newton, Gordon, St. Louis
Newton, William T., St. Louis
Nichols, W. Kirt, Columbia
Nickel, James F., St. Louis
Nickels, Mathew L., Louisiana
Nicolai, Charles H., St. Louis
Nicolay, Bill, Fredericktown
Niedermeyer, Edward L., Tarkio
Niedermeyer, George J., St. Louis
Nielson, Michael H., Independence
Niesen, Frank J., St. Louis
Nieuwenhuizen, Maarten, Columbia
Nieva, Delfin T., St. Louis
Nigh, Charles A., St. Louis
Nigro, E. Robert, Shawnee Mission, Kan. (Member Jackson County Medical Society)
Nigro, Joseph A., Kansas City
Nishi, Toshio, St. Louis
Nixon, Edward E., Gallatin
Noback, Richardson K., Kansas City
Nolan, Charles J., St. Louis
Noller, Henry W., Overland
Nolph, Georgia B., Columbia
Noltensmeyer, Milton N., Shawnee Mission, Kan. (Member Jackson County Medical Society)
Nomura, Roy M. Y., St. Louis
Norland, Charles C., St. Louis
Noronha, R. F. X., St. Louis
Nouhan, Joseph C., Jr., St. Louis
Nourbakhsh, Mahmoud M., Platte City (Member Clay County Medical Society)
Nouri, Hassan, St. Louis
Novak, Edward J., Kansas City
Nuetzel, John A., St. Louis
Nukrongsin, Somporn, St. Louis
Nunez, Maria M., St. Louis
Nussbaum, Robert A., St. Louis
Nye, Robert S., St. Louis
- O**
- Oakley, Margaret M., St. Louis
Obadina, Olukunle O., St. Louis
Obando, Francisco J., Troy
O'Bannon, Lon W., Jr., Florissant
Obermeyer, Charles G., St. Louis
O'Brien, Edward C., St. Louis
O'Brien, Edward J., St. Louis
O'Brien, Harry F., Mexico
O'Brien, Liam, St. Joseph
O'Brien, Robert M., St. Louis
Oceano, Victor G., Monett
O'Connor, Robert J., Florissant
O'Connor, William B., St. Joseph
O'Donnell, Joseph V., St. Louis

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O'Dowd, James A., St. Louis
Odujebi, Henry A., St. Louis
Oehler, William F., Cape Girardeau
Oestreich, Alan, Columbia
Oetter, Donald L., St. Louis
O'Farrell, Thomas P., Kansas City
Oglesby, Richard B., St. Louis
Ognyanov, V. F., St. Louis
Ogura, Joseph H., Ladue
O'Hearne, John J., Kansas City
Ohlms, David L., St. Louis
Ohmoto, Masao, St. Louis
Ojascastro, Alejandro C., St. Louis
O'Keefe, Joseph D., St. Louis
O'Keefe, Stephen L., Chicago, Ill. (Member Boone County Medical Society)
O'Kell, Richard T., Kansas City
Okun, Edward, St. Louis
Olive, George C., Neosho
Oliver, George A., Farmington
Olmsted, William H., St. Louis
Olney, John W., St. Louis
Olson, Elbert R., Springfield
Olson, Richard O., Jr., St. Charles
Olson, Robert E., St. Louis
O'Malley, James F., Kansas City
Omell, Gary H., St. Louis
O'Neal, Lawrence W., St. Louis
O'Neal, Patricia, St. Louis
O'Neil, James H., Port Charlotte, Fla. (Member Jackson County Medical Society)
O'Neill, Joseph A., Columbia
Ong, Eng L., St. Louis
Ong, Ofelia, St. Louis
Oppenheimer, Henry E., Clayton
Ordoukhanian, Tatool, St. Charles
O'Reilly, D. Elliott, St. Louis
Orenstein, Joseph M., St. Louis
Orgel, M. Norman, St. Louis
Orgel, Michael, St. Louis
Orille, Oscar P., St. Louis
Orsay, Paul K., St. Louis
Orszulak, Thomas A., St. Louis
Orth, Oliver G., Columbia
Ortiguero, Leopoldo M., St. Louis
Ortillo, Amado P., St. Louis
Ortmeyer, Leroy F., St. Louis
Osborne, Jere O., Kansas City
Osbourn, Richard A., Fulton
Ossman, Julian A., Jefferson City
Ost, Mark D., Kansas City
Ostapowicz, Frank, St. Louis
O'Sullivan, Daniel F., St. Louis
Ott, F. Thomas, Glendale
Ott, Harold J., II, St. Louis
Ott, Harold J., Maplewood
Ott, William J., St. Louis
Ottensmeyer, Charles D., Springfield (Member St. Louis County Medical Society)
Otto, Thomas G., Cape Girardeau
Ottolini, James L., St. Louis
Overend, Donald S., Springfield
Overesch, Harv B., Kansas City
Overholser, Milton D., Columbia
Owen, Robert F., St. Louis
Owens, James L., Kansas City
Owens, John H., Sedalia
Owens, Richard L., Kansas City
Owens, Robert H., Kansas City
Owens, William D., St. Louis
Ozar, Milton B., Kansas City
Ozenberger, Larry A., Plattsburg
Ozmat, Orhan, St. Louis

P

Pack, Gary L., Kansas City
Packman, Robert C., St. Louis
Paculdo, Nora R., St. Joseph
Paddock, Charles S., Joplin
Padilla, Teresita C., St. Louis
Paez, Mauro A., St. Louis
Page, Jesse W., Sikeston
Paine, Robert, St. Louis
Painter, Andrew E., Portageville
Painter, Lattie B., Jr., Portageville
Pakula, Sidnev, Kansas City
Palazzo, Frank A., St. Louis
Palcheff, Chris L., Springfield
Palenske, Robert L., Hornersville
Paletta, Francis X., St. Louis
Paletta, Frank L., Maryland Heights
Paletta, Theodore L., St. Louis
Paletta, Victor, St. Louis
Pappalardo, Carlos, St. Louis
Pardo, Leopoldo P., Jr., St. Louis
Pardo, Lourdes Sy, Arnold
Pareman, Allen G., Kansas City
Parikh, Sharad P., St. Louis

Paris, William H., Normandy
Park, Agatha Lee, St. Louis
Park, Chong K., St. Louis
Park, Duk Jae, Festus
Park, Kun H., St. Louis
Park, William I., Jr., Springfield
Parker, Arthur C., Jr., Poplar Bluff
Parker, Hubert M., Kansas City
Parker, Thomas W., University City
Parker, William, St. Louis
Parkison, Donald E., Shell Knob (Member Ozarks Medical Society)
Parmar, Harshadrai, St. Louis
Parsons, D. LeRoy, Cape Girardeau
Parsons, Eugene O., Stanley, Kan. (Member Jackson County Medical Society)
Parsons, Richard P., St. Louis
Partamian, Krikor O., St. Joseph
Partap, Prabha, St. Louis
Parulekar, D. C., Florissant
Parvatikar, Sadashiv D., St. Louis
Pascoe, James J., Nevada
Pasia, Ebello T., Maryland Heights
Paskar, Larry, St. Louis
Passanante, Bartholomew M., St. Louis
Patrick, Roman L., Jr., St. Louis
Patterson, Carroll D., Kansas City (Member Clay County Medical Society)
Patterson, Donald R., Joplin
Patterson, Grover S., Carthage
Patterson, John F., Marshfield
Patton, Douglas S., Oakland, Calif. (Member St. Louis Medical Society)
Paul, Paul V., St. Louis
Paulson, Gordon S., St. Joseph
Pavlu, Robert R., Waverly
Pawol, S. E., Bridgeton
Pawsat, John E., Kansas City
Payne, David E., Columbia
Payne, John W., Columbia
Payne, Meredith J., St. Louis
Payne, Vaughn C., St. Louis
Pearlman, Alan L., St. Louis
Pearman, Carl C., Columbia
Pearse, Roy W., Jr., Nevada
Pearson, Paul E., Kansas City
Pecoraro, Anthony P., Kansas City
Peden, Burnet W., Clayton
Peden, James C., Jr., St. Louis
Peden, Joseph C., St. Louis
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Peebles, J. B., Jr., Kirkwood
Peete, Don C., Kansas City
Pelegri, Robert J., Independence
Pelican, George, Columbia (Member St. Louis County Medical Society)
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Pemberton, L. Beaty, Kansas City
Pence, F. Wendell, Carthage
Pendell, Paul W., Rolla
Penilla, Antonio R., Bridgeton
Penner, Stanley, Kansas City
Penninger, William H., Springfield
Pennington, Francis E., St. Louis
Pennoyer, James, Webster Groves
Pepper, Edward G., St. Louis
Pepper, Max, St. Louis
Perez, Adam R., St. Louis
Perez, Blanca M., St. Louis
Perez, Carlos A., St. Louis
Perez, Raul A., St. Louis
Perez-Mesa, Carlos, Columbia
Perico, Carlos J., Kansas City
Perkins, David E., St. Louis
Perkoff, Gerald T., St. Louis
Perll, Maurice F., Kansas City
Perll, Rita D., Kansas City
Perna, Vincent P., Creve Coeur (Member St. Charles-Lincoln County Medical Society)
Pernoud, Flavius G., Jr., St. Louis
Pernoud, Michael F., St. Louis
Perry, H. Mitchell, St. Louis
Perry, Michael C., Columbia
Perry, Ralph, Kansas City
Perry, William D., St. Louis
Petersen, Eugene G., Lee's Summit
Petersen, Harold E., St. Joseph
Peterson, Bonita J., Kansas City
Peterson, Carl M., Kansas City
Peterson, Charles R., Columbia
Peterson, Donald B., Fulton
Peterson, Frederick D., St. Louis
Peterson, Gary J., St. Louis
Peterson, George L., Kansas City
Peterson, Stanley S., Springfield
Peterson, Walter R., Kansas City
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Petruska, Paul J., St. Louis
Petry, Ezra L., Lenexa, Kan. (Member Jackson County Medical Society)
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Pfeifer, Robert I., St. Joseph

Pfefferkorn, David, St. Louis
Pfeifer, Oliver C., St. Louis
Philip, Varkey, St. Louis
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Phillips, John J., St. Louis
Phillips, William J., St. Louis
Philpott, Gordon W., St. Louis
Phipatanakul, Chintana, Florissant
Phipatanakul, Supote, St. Louis
Piccione, Leonard N., St. Louis
Pichardo, Javier, Farmington
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Pickens, James Milton, Columbia
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Piebenga, Larry W., Kansas City
Piepergerdes, Larry G., Kansas City
Pifer, Lawrence H., St. Joseph
Pileggi, Felix A., N. Kansas City
Pilla, Lawrence A., St. Louis
Pimentel, Esperanza, St. Louis
Pineda, Hector O., St. Louis
Pingleton, William B., Columbia
Pinkerton, Joseph A., Jr., Kansas City
Pinkstaff, Thomas H., Sikeston
Pinsker, Oscar T., Kansas City
Pinto, John F., APO, New York (Member St. Louis Medical Society)
Piper, August T., St. Louis
Piper, Donald K., Kansas City
Pipkin, Garrett, Clinton (Member Jackson County Medical Society)
Pirataranta, Vinai, St. Louis
Pitney, Philip W., Louisiana
Pitsinger, Nolan B., St. Louis
Pittman, Gerald, St. Louis
Pittman, Susan, St. Louis
Pitts, Ferris N., Jr., St. Louis
Pizzimbono, Carlos A., Highland, Ill. (Member St. Louis Medical Society)
Place, K. Craig, Kansas City
Platt, William R., Dallas, Tex. (Member St. Louis County Medical Society)
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Plax, Steven, St. Louis
Plesons, John D., St. Louis
Plowman, Edward M., Hannibal
Plumpe, W. Tupper, St. Louis
Plunkett, Littleton J., Jr., Poplar Bluff
Podrecca, Guido I., Springfield
Poggemeier, William H., Jr., St. Charles
Pojanasomboon, Pichat, Rolla
Politi, Gregory, Kansas City
Politte, Lenard L., Columbia
Pollock, Leo H., Kansas City
Pontillas, Job B., Perryville
Poonawala, Huseini E., Kansas City
Poor, Carl W., Neosho
Pope, Charles H., Jr., Kansas City
Popp, Carl G., Sikeston
Porporis, Arthur A., St. Louis
Porter, Louis, Kansas City
Porter, Michael J., Kansas City
Portugal, Antonio Q., St. Louis
Portuondo, Bonaventura C., St. Louis
Post, John P., Washington
Post, Lawrence T., Jr., St. Louis
Post, Stephen L., St. Louis
Post, Winfred L., Joplin
Potashnick, Robert, St. Louis
Pottenger, Lowell K., Joplin
Potter, Caryl A., Jr., St. Joseph
Potter, Lee G., Kansas City
Potter, Reese H., St. Louis
Potts, Donald A., Independence
Powell, Alan E., Independence
Powell, Charles B., Florissant
Powell, Earl A., St. Louis
Powell, Edwin M., Springfield
Powell, Nelson E., Kansas City
Powell, Robert C., Kansas City
Powell, Robert G., Joplin
Powers, Pierce W., St. Louis
Powers, William E., St. Louis
Prater, Bill G., Springfield
Pratt, Lindsay L., Philadelphia, Pa. (Member St. Louis Medical Society)
Prendergast, Thomas John, Jr., Columbia
Prensky, Arthur L., St. Louis
Presnell, Cleith A., St. Louis
Price, Kenneth C., St. Louis
Prieto-Basa, Nenita, St. Louis
Printz, Joseph H., Kansas City
Printz, Otto J., Kansas City
Probst, Raymond E., St. Louis
Probst, Jacob G., St. Louis
Proctor, Donald C., Sedalia
Prokop, Joseph R., St. Joseph

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 Proskey, Vincent J., St. Louis
 Prostie, Edward J., Kansas City
 Pruett, Burchard S., St. Louis
 Pruett, Don S., St. Louis
 Pruett, Hubert S., St. Louis
 Pruett, Paul L., Springfield
 Prusaczyk, Joseph, Florissant
 Pryor, Harold J., Kansas City
 Pryor, Ira Joe, Joplin
 Pu, Pin H., Kennett
 Pucci, Gregory L., Kansas City
 Pugh, Daniel D., St. Louis
 Pugh, Richard G., Independence
 Pulliam, Morris W., Columbia (Member St. Louis Medical Society)
 Punhong, Prasert, Lubbock, Tex. (Member St. Louis Medical Society)
 Purcell, Harry K., St. Louis
 Purcell, Paul L., Smithville (Member Marion-Ralls-Shelby County Medical Society)
 Puthenpurackal, George, St. Louis
 Pyne, Herbert S., St. Louis

Q

Quer, Erich A., Kansas City
 Quick, Richard T., St. Louis
 Quinn, Paul S., Springfield

R

Raborar, Arteso C., Springfield
 Racadio, Severo M., Kirkwood
 Racela, Antonio S., Jr., Kansas City
 Rachlin, Maxwell, St. Louis
 Rader, Ada B., Kansas City
 Rader, Edward S., St. Louis
 Rader, George B., St. Louis
 Radke, John D., St. Louis
 Raghunandan, Dundoo, St. Louis
 Ragland, Jerry, Warrensburg
 Ragland, John E., Linn
 Rahman, Mohammad H., St. Charles
 Rahman, Moududur, St. Louis
 Raich, Robert A., Kansas City
 Raichle, Marcus E., St. Louis
 Rainey, Robert, St. Louis
 Rainwater, Elmer H., Springfield
 Raksakulthai, V., Fredericktown
 Rall, Kenneth L., Columbia
 Ramey, Ehret O., Kansas City
 Ramirez, Ricardo M., Poplar Bluff
 Ramirez, Samuel G., St. Louis
 Ramos, Americo G., Kansas City
 Ramsey, Robert H., Florissant
 Randolph, Bernard C., St. Louis
 Rankin, Diane, St. Louis
 Rannie, Paul R., Independence
 Rao, A. R., Fredericktown
 Rao, Aswath N., St. Louis
 Rao, Carlo, St. Louis
 Rao, S. N., St. Louis
 Rao, V. Padmanabha, Spokane, Wash. (Member Greene County Medical Society)
 Raper, Charles A., Poplar Bluff
 Raphael, Jose, St. Joseph
 Rapp, Earl L., Hannibal
 Rapp, Harold B., Cape Girardeau
 Rappold, H. O., St. Ann
 Ratcheson, Robert A., St. Louis
 Ratkin, Gary A., St. Louis
 Ratnam, Dasari V., Kansas City
 Rauch, James E., Kansas City
 Ravis, Mark S., Kansas City
 Rawlins, Fred E., Cape Girardeau
 Raybuck, Harry E., St. Louis
 Raynor, Richard, Marshall
 Raza, Syed A., St. Louis
 Razek, A., Maryland Heights
 Reardon, Thomas F., St. Louis
 Recano, Ricardo Q., St. Louis
 Rector, Joe L., Jr., Kansas City
 Reddin, Jack L., Independence
 Reddin, Patrick C., Mexico
 Reddy, Abbiah N., Poplar Bluff
 Reddy, Sarvotham K., Poplar Bluff
 Redington, James C., Jr., Clayton
 Redmond, John W., St. Louis
 Redmond, William, St. Joseph
 Reed, G. H., Appleton City
 Reed, William A., Kansas City
 Reeder, Charles C., Smithville
 Rees, John, Kahoka
 Reese, A. Victor, St. Louis
 Reese, Lester T., St. Louis
 Reeves, Glen I., University City
 Regier, Carl M., Branson
 Reh, Thomas E., St. Louis
 Rehm, Ralph, Dexter
 Reich, Harry A., St. Louis
 Reichert, M. Cecelia, St. Louis
 Reid, James A., Marshall
 Reider, Richard A., Warson Woods
 Reineck, John A., St. Louis
 Reinhard, Edward H., St. Louis
 Reinhardt, George R., Kansas City
 Reisa, Ronald C., St. Charles
 Reisler, David M., St. Louis
 Reiss, Jeanne E. L., Kansas City
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 Reister, Philip D., Kansas City
 Reitman, Stanley, St. Louis
 Rejent, Anthony, St. Louis
 Rendleman, David D., Clayton
 Rendleman, George F., St. Louis
 Rendleman, George, Jr., St. Louis
 Rengachary, Dhanalakshmi, Kansas City
 Rennard, Marvin, St. Louis
 Repaso, Florante A., Sullivan (Member St. Louis County Medical Society)
 Repp, Theodore J., St. Louis
 Reuter, Louis A., St. Louis
 Revare, Paul, Kansas City
 Reveley, Michael, St. Louis
 Reyes, Jose T., St. Louis
 Reyes, Luis A., St. Louis
 Reyes, Rosendo A., St. Louis
 Reynolds, Clarence C., Kansas City
 Reynolds, Fred, St. Louis
 Reynolds, James A., Warson Woods
 Reynolds, James D. H., Jr., Kansas City
 Reynolds, M. Wayne, Warrensburg
 Rhee, Dong S., St. Louis
 Rhee, Seoung Eun, St. Louis
 Rhodes, Andrew J., Kansas City
 Rhodes, Philip G., Kansas City
 Ricci, Walter F., Kansas City
 Rice, Ronald, St. Charles
 Richany, Shafik F., Kansas City
 Richards, Frank O., St. Louis
 Richardson, George A., Union
 Richardson, Marion W., Kansas City
 Richardson, Thomas F., St. Louis
 Richardson, William R., Union
 Richert, Robert C., Kansas City
 Richman, Elmer, Chesterfield
 Richmond, Michael R., Florissant
 Ridenhour, C. E., Gene, Columbia
 Ridgeway, William G., St. Louis
 Ridings, G. Ray, Cape Girardeau
 Ridings, Harold D., Cape Girardeau
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 Ries, Douglas A., St. Louis
 Riffel, Gordon W., Bourbon
 Rigdon, John D., Kennett
 Riggio, Salvatore N., St. Louis
 Rigney, Levi M., Springfield
 Rikli, Arthur E., Columbia
 Riley, Charles T., Richmond
 Riley, John J., St. Louis
 Riley, Joseph P., Jr., Parthenon, Ark. (Member Jackson County Medical Society)
 Riller, Lowell E., Kansas City
 Rinck, Edward C., Nevada
 Ring, Edward M., St. Louis
 Rink, Richard A., Columbia
 Riordan, Robert H., Kansas City (Member Clay County Medical Society)
 Rippey, John H., Kansas City
 Rising, Dean R., Springfield
 Ritchie, Frances R., St. Louis
 Ritter, C. John, Cape Girardeau
 Ritter, Carl F., Cape Girardeau
 Ritter, Hubert A., St. Louis
 Ritter, Paul J., St. Louis
 Ritter, Raymond A., Cape Girardeau
 Ritter, Raymond A., Jr., Cape Girardeau
 Ritterbusch, James K., Fulton
 Rizzo, Adolfo E., St. Louis
 Roach, Edward A., St. Charles
 Roark, Michael, St. Louis
 Robb, Harold Phillip, Jefferson City
 Robben, G. Garry, St. Louis
 Roberts, Grosvenor G., Lee's Summit
 Roberts, Harold K., Clayton
 Roberts, Harold M., Kansas City
 Roberts, Howard H., Joplin
 Roberts, John P., Kirkwood
 Roberts, Paul A., Sweet Springs
 Roberts, Perry, Cape Girardeau
 Roberts, Phyllis Grant, St. Joseph
 Roberts, William V., Jr., St. Louis
 Robertson, Frank G., St. Louis
 Robertson, William D., Poplar Bluff
 Robertson, William D., Kansas City
 Robinett, Wade V., Kansas City
 Robinson, Arthur W., Kansas City

Robinson, Edith C., St. Louis
 Robinson, E. Kip, Kansas City
 Robinson, Gary Lewis, Springfield
 Robinson, George G., Humansville
 Robinson, Van M., N. Kansas City (Member Clay County Medical Society)
 Robinson, William J., Kansas City
 Roblee, Melvin A., St. Louis
 Roche, Maurice B., St. Louis
 Rodas, Rizalina, Kansas City (Member Clay County Medical Society)
 Roden, Vernon J., St. Louis
 Rodas, Ned D., Mexico
 Rodgers, Elrie P., Columbia
 Rodgers, George H., Overland Park, Kan. (Member Jackson County Medical Society)
 Rodgers, Samuel U., Kansas City
 Rodrigo, Bernardo R., Creve Coeur
 Rodriguez, Gregorio L., Charleston
 Rodriguez, Rolando A., Shawnee Mission, Kan. (Member Jackson County Medical Society)
 Rodriguez, Ubaldo R., St. Louis
 Roehrs, Marvin E., Marshall
 Rofail, Amin A., Shawnee Mission, Kan. (Member Jackson County Medical Society)
 Rogers, Hunter Bryan, St. Louis
 Rogers, John T., St. Joseph
 Rogers, Robert L., Kansas City
 Rogers, Wallace, Jr., Columbia
 Roller, Merrill J., Hannibal
 Romito, Anthony, Kansas City
 Rongey, Kenneth, St. Louis
 Roos, Albert, St. Louis
 Roper, Charles L., St. Louis
 Roper, Stanley D., Ozark
 Rose, Charles W., Kansas City
 Rose, Dalton K., St. Louis
 Rose, John F., Chillicothe
 Rosecan, Marvin, St. Louis
 Rosell, Louis V., St. Louis
 Rosen, Robert S., St. Louis
 Rosenbaum, Harry D., St. Louis
 Rosenbaum, Herbert E., St. Louis
 Rosenberg, Isaac, Kansas City
 Rosenfeld, Henry, St. Louis
 Rosenholtz, Mitchell J., Roseville, Minn. (Member Boone County Medical Society)
 Rosenstein, Daniel Lesem, Sikeston
 Rosenthal, Irwin I., St. Joseph
 Rosenthal, Randall, St. Louis
 Roskind, Joel L., St. Louis
 Ross, Gilbert, Jr., Columbia
 Ross, Robert M., Gladstone (Member Clay County Medical Society)
 Ross, William J., St. Ann
 Rost, William B., St. Joseph
 Roter, Alexander M., St. Charles
 Roth, Alfred D., Kansas City
 Roth, John J., Creve Coeur
 Rother, Paul H., St. Charles
 Rothman, David, St. Louis
 Rothweiler, Robert J., St. Louis
 Rotskoff, Kenneth S., St. Louis
 Roulhac, George E., St. Louis
 Rouse, Ernest T., St. Louis
 Roush, George, Jr., St. Louis
 Rowe, John T., St. Louis
 Roxas, Generoso P., St. Charles
 Roy, Joseph A., Jennings
 Royce, James J., Sarcoxie
 Royce, Robert K., St. Louis
 Royer, Jerry A., Columbia
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 Rubenstein, Melvin, St. Louis
 Rubin, Harvey P., Kansas City
 Rubin, Robert, Florissant
 Rubnitz, Leon H., Kansas City
 Rudi, Herbert J., St. Louis
 Ruehl, Albert F., St. Louis
 Rufe, John R., Kansas City
 Ruff, T. Eugene, Poplar Bluff
 Ruhling, Rudy, St. Louis
 Rumelt, Michael B., St. Louis
 Runez, Manuel W., Houston
 Rusan, Thomas E., St. Louis
 Russell, Barbara E., Rolla
 Russell, Earl D., Springfield
 Russell, Garth, Columbia
 Russell, Herman E., St. Louis
 Russell, James L., Kansas City
 Russell, Joseph P., Jefferson City
 Russell, Robert K., Raytown
 Rutledge, John F., Festus
 Rutngamlug, Leucha, Florissant
 Ryan, John B., Washington
 Ryan, John H., St. Joseph
 Ryan, John J., St. Louis

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Ryan, Robert E., St. Louis
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S

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Saab, Salim, Columbia
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Safdar, Shabbir, Granite City, Ill. (Member St. Louis Medical Society)
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Safley, Thomas J., III, Independence
Saghir, Marcel, St. Louis
Saha, Nitai C., Ballwin
Saha, Sudha R., Ballwin
Saifee, Salma, St. Louis
Saint-Louis, Bellande, St. Louis
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Salanga, P. B., St. Louis
Sale, Llewellyn, Jr., St. Louis
Salmon, Mickey L., St. Louis
Samady, Abdul R., St. Louis
Sammon, T. James, Springfield
Sammons, Harry C., St. Louis
Samuelson, Edward A., Kansas City
Sanchez, Abelardo B., St. Louis
Sanchez, Salvador Valera, St. Joseph
Sanders, Donald C., Kansas City
Sanders, George E., Lee's Summit
Sanders, Harmon U., Jr., Greenwood, Miss. (Member Jackson County Medical Society)
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Sanders, Theodore E., St. Louis
Sanders, William F., Kansas City
Sandow, Theodore, Jr., Kansas City
Saneman, Paul P., Joplin
Santillano, Antonio B., St. Louis
Santoro, Carlos G., Kansas City
Santos, Romeo I., Kennett
Santschi, Don R., Kansas City
Sanwardeker, Milind, Agawam, Mass. (Member St. Louis Medical Society)
Sargent, Alden P., Sikeston
Sargent, John P., Sikeston
Sasser, William F., St. Louis
Sastri, Malladi R., St. Louis
Sato, George, St. Louis
Sauer, Donald C., St. Louis
Sauer, Gordon C., Kansas City
Sauer, Paul E., Springfield
Sauer, W. Nicholas, St. Louis
Saunders, Carol S., Columbia
Sauvage, Jacques, St. Louis
Savci, Hasan D., St. Louis
Sawyer, Floyd E., Kansas City
Sawyer, James, St. Louis
Sawyer, Olaseinde, St. Louis
Scales, Margaret B., Kansas City
Scanlon, Robert C., Springfield
Schaan, Robert C., St. Louis
Schaefer, George J., St. Louis
Schaefer, Glenn S., Jr., St. Louis
Schaeffer, Edward M., Springfield
Schaerer, Jacques P., St. Louis
Schaerrer, William C., Kansas City
Schaper, Ernest H., St. Louis
Schechter, Samuel E., St. Louis
Scheele, Paul M., Kirkwood
Scheer, George E., St. Louis
Scheff, Harold, St. Louis
Scheibe, Robert G., St. Louis
Scheible, Robert, St. Louis
Scheinman, Louis J., St. Louis
Schengber, John S., St. Louis
Scherr, David D., Jefferson City
Schertz, Truman B., N. Kansas City
Scheuber, Charles, Columbia
Schewe, Elmer J., Jr., Columbia
Schierman, William D., St. Louis
Schiffmacher, Jack E., Blue Springs (Member Jackson County Medical Society)
Schillie, Gene A., Kansas City
Schlansky, Seymour M., St. Louis
Schlozman, Daniel L., Kansas City
Schluer, Elmer P., St. Louis
Schmidt, Charles A., Gerald
Schmidt, Dennis A., St. Louis
Schmidt, Edmund M., St. Louis
Schmidt, Edwin H., St. Louis
Schmidt, Herbert J., Durham, N. C. (Member Jasper County Medical Society)
Schmidt, J. H., Jefferson City
Schmiemeier, Roy H., St. Louis
Schneider, Sam, St. Louis
Schneider, Thomas A., St. Charles
Schober, Charles C., St. Louis

Schoeberl, Cletus B., Joplin
Schoeck, Albert F., St. Louis
Schoedinger, George R., III, St. Louis
Schoenberg, Harry W., St. Louis
Schoenecker, Perry L., St. Louis
Schoentag, John S., St. Louis
Schokker, Johannes, Jefferson City
Schonfeld, Gustav, St. Louis
Schoolman, Arnold, Kansas City
Schopp, Alvin C., St. Louis
Schottman, Gerhard W., Jr., Kansas City
Schranck, Charles R., St. Louis
Schreiber, David J., St. Louis
Schreiber, Norman J., Springfield
Schroff, Carle H., Springfield
Schuessler, Wolfgang P., St. Louis
Schuetz, Alfred, St. Charles
Schulte, Gregory A., Joplin
Schultz, E. Robert, St. Louis
Schultz, Irwin, St. Louis
Schultz, Samuel, St. Louis
Schuman, Norvin D., Kansas City
Schutz, Carl B., San Marcos, Calif. (Member Jackson County Medical Society)
Schutz, John P., Excelsior Springs
Schutz, Richard B., Lee's Summit
Schwartz, Eugene J., Springfield
Schwartz, Frederick O., St. Louis
Schwartz, Henry C., St. Louis
Schwartz, Melvin M., St. Louis
Schwarzman, Bernard, Chesterfield
Schwarz, Luis, Clayton
Schweiss, John F., St. Louis
*Schwent, John T., Crystal City
Sciortino, Gaspare, St. Louis
Sciortino, John S., St. Louis
Scopelite, Joseph A., St. Louis
Scorse, Sidney W., Neosho (Member Jasper County Medical Society)
Scott, E. David, Jefferson City
Scott, Elwin P., St. Louis
Scott, Horace W., St. Louis
Scott, John E., Independence
Scott, Kenneth F., Jr., Clinton
Seabaugh, Loy R., Cape Girardeau
Seabaugh, Otis D., Des Peres (Member St. Louis County Medical Society)
Seabaugh, William O. L., Cape Girardeau
See, William B., Columbia
Seely, James J., St. Louis
Seely, Clark W., Shawnee Mission, Kan. (Member Jackson County Medical Society)
Seevers, Ruth, Osceola
Sehra, K. H., McDowell, Ky. (Member St. Louis Medical Society)
Seib, George A., St. Louis
Seiden, Gerald D., Kansas City
Seitz, Elson F., Independence
Sells, Kenneth J., Kansas City
Semenoff, Daniel J., St. Louis
Senhauser, Donald A., Columbia
Senne, Herbert C., St. Joseph
Sennott, John S., Jefferson City
Senturia, Ben H., St. Louis
Senturia, Hyman R., St. Louis
Sermchief, Chaiyarat, Fredericktown
Sertl, George O., St. Louis
Sertl, James F., Ballwin
Sertl, John D., St. Louis
Sessions, Donald G., St. Louis
Sethabutra, Chaisiri, St. Louis
Sethabutra, Yolvilai, St. Louis
Sevastianos, Aristides E., St. Louis
Sexton, Daniel L., St. Louis
Sexton, Elmer E., St. Louis
Shackter, Bruce I., Springfield
Shah, Anwar, St. Louis
Shah, Bharat K., St. Louis
Shah, F. Naheed, St. Louis
Shah, Jitendra, St. Louis
Shahan, Philip T., St. Louis
Shaheen, Eleanor, Columbia
Shaikun, Gerald L., Chesterfield
Shalet, Malcolm F., Kansas City
Shalley, Jack E., Kansas City
Shanahan, Mary P., Joplin
Shanahan, Phil I., Florissant
Shane, Ramon A., Springfield
Shaner, John F., Mexico (Member St. Louis Medical Society)
Shaner, Thomas P., St. Louis
*Shank, Neil A., Kansas City
Shank, Robert E., St. Louis
Shanks, William D., St. Louis
Shapiro, Herbert N., St. Louis
Shapiro, Lazare M., Kansas City
Shapleigh, John B., St. Louis
Sharma, Janardana N., Kansas City
Sharp, Austin R., Ballwin
Shatz, Burton A., St. Louis
Shaw, Edward J., St. Louis

Shaw, William J., Jr., Fayette
Shea, James G., Washington
Sheahon, John A., Kansas City
Shechter, Nathan, Kansas City
Sheffield, William, St. Louis
Sheikh, Abdul R., St. Louis
Shelden, Russell D., Kansas City
Shell, William C., Sikeston
Shelton, Earl W., St. Louis
Shelton, Edward O., Eldon
Shelton, R. Wayne, Springfield
Shen, Jerome T. Y., St. Louis
Shen, Yen, Kansas City
Sheppard, Julius K., St. Joseph
Sheridan, Edmund R., St. Louis
Sheridan, John J., St. Louis
Sherlock, John L., St. Louis
Sherman, Warren C., St. Louis
Sherwin, Charles S., St. Louis
Shevlin, Charles F., St. Joseph
Shieber, William, St. Louis
Shields, J. B., St. Louis
Shields, Lawrence S., Springfield
Shifrin, Alexander, Kansas City
Shintaku, Mickey, St. Louis
Shirey, Arnold G., Hayti
Shobe, Frank O., St. Louis
Shockley, Clarence J., Greenwood
Shoss, Milton, Cape Girardeau
Shreim, Ali R., Sikeston
Shriver, Ronald G., Poplar Bluff
Shuey, Herbert H., Kansas City
Shuff, Paul D., St. Louis
Shull, George D., Jefferson City
Shuman, Joseph S., St. Louis
Shyken, Herman, St. Louis
Sicat, A. V., Warrensburg
Siceluff, Joseph C., Springfield
Siddiqui, Farzana Q., St. Louis
Sides, Stanley D., Cape Girardeau
Siegel, Carl D., Kansas City
Siemers, George E., St. Louis
Siesener, Herbert H., St. Louis
Sights, Warren P., Jr., Columbia
Sigmund, Charles A., St. Ann
Signorelli, Andrew J., St. Louis
Silber, Sherman J., St. Louis
Silliman, York E., St. Joseph
Silsby, Don J., Springfield
Silsby, Harry D., Springfield
Silva, Victor A., St. Louis
Silver, Bernd, St. Louis
Silver, Donald, Columbia
Silverberg, Charles, St. Louis
Silverman, Barry, St. Louis
Silvermintz, Saul D., Ladue
Silvers, Robert G., Columbia
Simmons, Donald D., Kansas City
Simmons, John L., Kansas City
Simms, Otho M., St. Charles
Simon, David L., St. Louis
Simon, Jerome I., St. Louis
Simon, Nathan M., St. Louis
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Simonds, John F., Columbia
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Simpelo, R. V., Potosi
Simpson, Albert P., Springfield
Simpson, Emerson L., Springfield
Simril, Wayne A., St. Louis
Sims, William A., Jr., St. Louis
Sinclair, Richard H., Kansas City
Sincox, Charles H., Washington
Singhal, Gokul S., St. Louis
Singhal, Renu, St. Louis
Singleton, Chas. M., II, Kansas City
Singleton, John M., III, Kansas City
Singleton, Marvin A., Joplin
Sinsakul, Vichien, St. Louis
Sirintrapun, Seyvee, Festus
Siripipat, Pallop, Mexico
Sirridge, Marjorie S., Kansas City
Sirridge, William T., Kansas City
Sisk, James C., St. Louis
Sisler, Donald, St. Louis
Sisler, Maynard Lee, Kennett
Sisson, Richard G., St. Louis
Siu, Kenneth K. C., Jefferson City
Skeffington, Mary Jane, St. Louis
Skilling, David M., Jr., St. Louis
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Skimming, W. Lee, Olivette
Skinner, John S., St. Louis
Skinner, John T., Kansas City
Sklendar, Donald E., St. Joseph
Slankard, J. Edward, Kansas City
Slaughter, Carl R., Kansas City
Slentz, Edwin L., Kansas City
Slentz, William A., Kansas City

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 Slickman, Robert A., Kansas City
 Sly, William S., St. Louis
 Smiley, William, St. Louis
 Smit, Herbert M., St. Louis
 Smith, Arthur B., Kansas City
 Smith, Benjamin F., Jr., St. Louis
 Smith, C. Franklin, Willow Springs
 Smith, C. Souter, Springfield
 *Smith, Charles H., Kansas City (Member Clay County Medical Society)
 Smith, Dermott, St. Louis
 Smith, Elbert E., III, Kansas City
 Smith, Emily, St. Louis
 Smith, Garland F., St. Louis
 Smith, Gregory L., Kansas City
 Smith, Herbert P., W. Palm Beach, Fla. (Member St. Louis Medical Society)
 Smith, Hubert E., Kansas City
 Smith, Hugh R., St. Louis
 Smith, Ira T., Kansas City
 Smith, J. Earl, St. Louis
 Smith, James B., St. Louis
 Smith, James M., Kansas City
 Smith, James O., Clinton
 Smith, Jason N., Jr., Columbia
 Smith, Joe R., Columbia
 Smith, John C., Kansas City
 Smith, Katherine W., Kansas City
 Smith, Kathleen, St. Louis
 Smith, Kenneth R., Jr., St. Louis
 Smith, Morton E., St. Louis
 Smith, Norris W., St. Louis
 Smith, Othello D., Kansas City
 Smith, Robert W., Brookfield
 Smith, Robert W., St. Louis
 Smith, Roland T., Joplin
 Smith, Rollin H., West Plains
 Smith, Sidnev E., St. Louis
 Smith, Ted P., Rolla
 Smith, Wallace B., Independence
 Smith, William J., Windsor
 Smith, W. Russell, Carthage
 Smoller, Martin B., St. Charles
 Smull, Ned W., Kansas City
 Snead, William H., Jr., Springfield
 Sneid, Philip, Kansas City
 Snider, Wilbur R., Kansas City
 Snow, Emasue, Springfield
 Snowe, Robert J., Sedalia
 Sohn, Richard S., St. Louis
 Solley, Robert F., Old Saybrook, Conn. (Member St. Louis Medical Society)
 Solomon, Felix G., St. Louis
 Sombun, Tirdkai, St. Louis
 Somers, John E., Columbia
 Sommer, Conrad S., St. Louis
 Sommer, Ross, B., St. Louis
 Somoza, Jose, Kansas City (Member Clay County Medical Society)
 Soonattrakul, Wuthisak, Kennett
 Soorya, Narendir T., St. Louis
 Soper, Michael R., Kansas City
 Soper, Steven J., Independence
 Soper, William D., Liberty
 Sopuch, John A., St. Louis
 Sosebee, Lee A., Columbia
 Soto, Alberto A., St. Louis
 Soucy, John C., St. Charles
 Soule, Samuel D., Clayton
 Spafford, Allen L., Kansas City
 Spalding, David L., Springfield
 Spalding, Donald G., St. Louis
 Spalding, Wilber B., Plattsburg
 Spalding, Wilber B., Jr., Kansas City
 Sparkman, Thomas C., Cape Girardeau
 Spears, Charles A., Branson
 Spears, Joe L., Cabool
 Spector, Gene W., St. Louis
 Spector, Gershon J., St. Louis
 Spence, Paul A., Cape Girardeau
 Spencer, Donald M., Kansas City
 Speno, Angelo A., St. Louis
 Spies, Barbara J., Kansas City
 Spinzig, Edgar W., Kirkwood
 Spitz, Milton A., Chicago, Ill. (Member St. Louis County Medical Society)
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 Spivack, Alan R., St. Louis
 Spoeneman, Marlin C., Chesterfield
 Spoenemann, Walter H., St. Louis
 Spoenberg, Don D., Springfield
 Sportsman, Weldon L., Kansas City
 Spratt, John S., Jr., Columbia
 Spurgeon, Milo J., Columbia
 Spurney, Joe E., Kansas City
 Spurny, Otto M., Kansas City
 Soultieri, A. J., St. Louis
 Srikrishna, Srivella, St. Louis
 Srivisal, Somnuk, Chesterfield
 Staab, Gerald E., Kansas City
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 Stacey, Winton T., St. Joseph
 Stafford, Walter R., St. Louis

* Doctor of Osteopathy.

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 Staley, Harry R., Kansas City
 Stallard, Donald J., St. Joseph
 Stamatis, John J., Springfield
 Stanczyk, Dennis J., St. Louis
 Stanfield, Ned M., Jr., St. Louis
 Stanley, John H., Kansas City
 Stanley, Robert J., St. Louis
 Staple, Tom W., St. Louis
 Starkloff, Gene B., St. Louis
 Starkloff, Max, St. Louis
 Statland, Harry, Kansas City
 Statland, Morris, Kansas City
 Staton, R. Hamilton, Carrollton
 Stauffacher, C. Gordon, Sedalia
 Stauffer, Harry B., Jefferson City
 Stauffer, Larry K., Jefferson City
 Steele, Jack T., St. Louis
 Steele, James C., Jr., Hannibal
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 Steffens, Richard S., Jr., Redding Calif. (Member Boone County Medical Society)
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 Stein, Arthur H., Jr., St. Louis
 Stein, Harry J., St. Louis
 Steinberg, Franz U., St. Louis
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 Stephen, C. Ronald, St. Louis
 Stephens, Jack D., Kansas City
 Stephens, LeRoy J., St. Louis
 Stephens, William A., Chesterfield
 Stephenson, Hugh E., Jr., Columbia
 Stergen, Nick E., Florissant
 Sterkel, Richard L., St. Louis
 Stern, Thomas L., Kansas City
 Stevens, Edward M., St. Joseph
 Stevens, Robert W., St. Louis
 Stewart, Frances H., St. Louis
 Stewart, Harry A., Kansas City
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 Stewart, Robert H., Sedalia
 Stewart, R. Wendell, Springfield
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 Stewart, Wendell K., Cape Girardeau
 Stickel, Arthur W., St. Louis
 Stickley, Louis P., St. Louis
 Stindel, Charles E., St. Louis
 Stockton, Raymond W., Kansas City
 Stockwell, A. Lloyd, Kansas City
 Stockwood, Robert C., Sedalia
 Stohr, Paul E., St. Louis
 Stokes, James M., St. Louis
 Stoneman, William, III, St. Louis
 Stoy, Robert P., Columbia
 Strader, Richard P., St. Louis
 Stradford, H. Todd, Columbia
 Strangle, Leslie L., Hannibal
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 Stratman, Clarence A., Kansas City
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 Strauss, Carl F., Kansas City
 Streeter, Roderick D., St. Louis (Member Chariton-Macon-Monroe-Randolph County Medical Society)
 Strehlman, Benjamin G., Union
 Stribling, Thomas L., Independence
 Stricker, Emil A., St. James
 Stricker, Harold C., Jefferson City
 Strobach, Kurt F., Bridgeton
 Strobach, Robert L., Butler
 Stromberg, Eric D., Kansas City
 Strominger, Donald B., St. Louis
 Stronsky, David L., St. Louis
 Stroud, Malcolm H., St. Louis
 Struessel, Kenneth F., Columbia
 Strvker, Garold V., Venice, Fla. (Member St. Louis Medical Society)
 Stryker, William I., Ladue
 Stuart, Byron M., Boonville
 Stuart, Daniel D., Brunswick
 Stuart, Wallace, St. Louis
 Stubblefield, C. F., Poplar Bluff
 Stubblefield, W. F., Springfield
 Stuber, Jack L., Kansas City
 Stuber, Robert R., St. Joseph
 Stuebner, Roland W., San Diego, Calif. (Member St. Louis County Medical Society)
 Stuerman, Lawrence G., Louisiana
 Stuffleham, Robert E., Springfield
 Sturtevant, Harwood N., Springfield
 Stutsman, Albert C., St. Louis
 Su, Philo Shien-Chan, Jefferson City
 Suarez, Pedro L., St. Charles
 Suba, Antonio R., St. Louis
 Suddarth, Sterling B., Kansas City
 Sudholt, Alfred F., Jr., St. Ann

Sugarbaker, Everett D., Jefferson City
 Sull, Wong J., Sedalia
 Sullivan, Clement J., St. Louis
 Sullivan, Dan T., Springfield
 Sullivan, William K., Scott AFB, Ill. (Member St. Louis County Medical Society)
 Sullivan, Wm. Wallace, St. Louis
 Sulzbach, John F., St. Louis
 Sumer, Cengis M., St. Louis
 Sumer, Emel A., St. Louis
 Summers, John B., St. Louis
 Summers, Joseph S., Jr., Jefferson City
 Summers, Thomas F., St. Louis
 Summers, William K., St. Louis
 Sundaram, Shankar, St. Louis
 Sunderman, Raymond C., St. Louis
 Sundstrom, Frank D., Springfield
 Sunshine, Herbert, St. Louis
 Susanka, William D., St. Louis
 Suseela, Dasari, Kansas City
 Susman, Noah, St. Louis
 Sutter, Richard A., St. Louis
 Sutton, Richard L., Jr., Shawnee Mission, Kan. (Member Jackson County Medical Society)
 Suva, Morfeo M., Springfield
 Svancarek, William P., St. Louis
 Swaykus, Bernard T., Bridgeton
 Sweeney, Thomas P., Springfield
 Sweet, Herbert C., Webster Groves
 Sweiger, James H., Plattsburg
 Swisher, Robert C., Walnut Creek, Calif. (Member Jackson County Medical Society)
 Swope, Joseph A., St. Louis
 Sword, Richard O., Kansas City
 Sydow, Henry A., Fulton
 Sylvanovich, W. Richard, St. Louis
 Szabados, Ernest D., Independence
 Szoko, Edward, St. Louis
 Szymanski, Stanley R., Macon (Member Grand River Medical Society)

T

Taglia, Santo W., St. Charles
 Talaban, Raymond D., Fredericktown (Member St. Louis County Medical Society)
 Talbert, Clifford R., Jr., Cape Girardeau
 Tamblyn, Claire L., Kansas City
 Tan, Charles H., St. Louis
 Tan, Sioe Sien, Farmington
 Tanaka, George M., St. Louis
 Tang, Teodoro C., Salem (Member St. Louis Medical Society)
 Tanner, Robert H., Jefferson City
 Tantleff, A. Robert, Kansas City
 Tapuz, Jaime T., Kansas City
 Tarrasch, Ernest L., Springfield
 Tarson, Solomon S., Overland Park, Kan. (Member Jackson County Medical Society)
 Tarver, Quinton, Kennett
 Tarvydas, Francis, Edina
 Tashma, Sigmund, St. Louis
 Tasker, Charles B., Sun City, Ariz. (Member Jackson County Medical Society)
 Tassi, Albert A., St. Charles
 Tatkow, Robert W., St. Louis
 Taussig, Barrett L., St. Louis
 Taute, Herman, St. Louis
 Tavassoli, Fataneh, St. Louis
 Taylor, Eugene D., St. Louis
 Taylor, Helen L., St. Louis
 Taylor, Herbert B., St. Louis
 Taylor, Leo T., Neosho
 Taylor, Leon A., Jefferson City
 Taylor, Van W., Bonne Terre
 Taylor, William E., Springfield
 Tayob, Anver A., St. Louis
 Teiber, Frederick W., St. Louis
 Tejero, Jonas S., St. Charles
 Tekwani, Hiralal, St. Louis
 Templer, Jerry W., Columbia
 Temporal, Jose A., St. Louis
 Tendai, Mark M., Springfield
 Ternberg, Jessie L., St. Louis
 Terry, Boyd E., Columbia
 Terry, James F., Springfield
 Terry, James W., Jr., Cape Girardeau
 Tess, Allen F., Florissant
 Tess, Melvin J. H., St. Louis
 Tesson, James A., Shawnee Mission, Kan. (Member Jackson County Medical Society)
 Thalblum, Harvey, Kansas City
 Thale, Thomas, St. Louis
 Thanapaial, Vunnee, St. Louis
 Tharp, Judith, Platte City
 Thawley, Stanley E., St. Louis
 Theel, Otto W., Jr., Kansas City
 Theobald, Sterling, Camdenton
 Thiel, J. Allen, St. Louis
 Thiele, Belmont R., St. Louis

Thiele, George H., Kansas City
Thiele, Otto K., St. Charles
Thierauf, Charles G., St. Louis
Thies, Jerome H., Osceola
Thind, Surinder S., Philadelphia, Pa.
(Member St. Louis Medical Society)

Thoma, George E., Jr., St. Louis
Thomas, Christopher Y., Jr., Kansas City
Thomas, Fred A., Kansas City
Thomas, Gracy, St. Louis
Thomas, Horace E., Columbia
Thomas, J. Regan, Columbia
Thomas, Lewis J., Jr., St. Louis
Thomas, Robert M., Columbia
Thomas, Thomas C., Liberty
*Thomas-Richards, Jose R., Kansas City
Thomasson, David D., Springfield
Thompson, Charles L., Kansas City
Thompson, F. Gregg, III, St. Joseph
Thompson, Ian M., Columbia
Thompson, M. Bryant, St. Louis
Thomson, James Myron, Jr., Shreveport, La.
(Member Boone County Medical Society)
Thornton, Fred H., Sikeston
Throgmorton, Howard B., Sikeston
Throne, Bennie J., Kansas City
Throne, Elias M., Kansas City
Thurman, Hill C., Parkville
Thurmann, Manfred, St. Louis
Thym, Henry P., Ballwin
Tice, Wayne K., Independence
Tichenor, Robert W., St. Louis
Tietjen, Frederick O., Jefferson City
Tiffany, Delbert E., Farmington
Till, Bennie N., Poplar Bluff
Tillema, David A., Kansas City
Tillman, Mary A. T., St. Louis
Tillman, Walter W., Jr., Springfield
Tindall, Robert N., St. Louis
Tinsley, Austin R., Poplar Bluff
Tinsley, John C., Jr., Columbia
Tiojanco, Milagros E., Kansas City
Tiojanco, Reynaldo, Kansas City
Tippett, Jack C., St. Louis
Titterington, Frank W., Kansas City
Tjoflat, Oliver E., St. Louis
Tobin, Robert F., St. Joseph
Tokriska, Aphiraks, Independence
Tombridge, Thomas L., Springfield
Tomlinson, William L., St. Louis
Tomson, Robert V., Moberly
Tonelli, George L., Hallendale, Fla.
(Member St. Louis Medical Society)

*Toon, Thomas J., St. Louis
Torin, Bernice A., University City
Toro, Enrique F., St. Louis
Torontow, John, Nevada
Totten, Frederick E., Overland Park, Kan.
(Member Jackson County Medical Society)
Toubes, Daniel B., Kansas City
Towers, Orville W., St. Charles
Traxel, William Louis, Poplar Bluff
Treiman, Robert C., St. Louis
Trimble, David P., Jr., Emporia, Kan.
(Member Clay County Medical Society)
Trimble, George X., Kansas City
Trinidad, Hermanito R., Chillicothe
Triplett, Daniel A., Kansas City
Triska, Roland A., St. Louis
Troeh, Melvin R., Independence
Trotter, Francis O., Jr., St. Louis
Trotter, W. Yates, Springfield
Trowbridge, Barnard C., Kansas City
Trowbridge, Ellsworth H., Jr., Kansas City
Trueblood, Alva C., Jr., St. Louis
Trugly, Edith S., St. Louis
Trumbower, William D., Columbia
Trunko, Leo, St. Louis
Tsang, John L. K., Springfield
Tsifutis, Argyrios, St. Ann
Tucker, Eugene F., St. Louis
Tucker, George L., St. Louis
Tuma, Arthur T., Poplar Bluff
Tumanut, Benesto F., Kansas City
(Member Clay County Medical Society)
Tuohy, Gerald F., Kansas City
Turano, William L., Kansas City
Turgeon, Ronald P., St. Louis
Turner, C. M., St. Louis
Turner, Glenn O., Springfield
Turner, James H., Poplar Bluff
Turner, James K., St. Louis
Turner, Kirby L., Poplar Bluff
Turner, Ronald M., Independence
Turner, William F., Poplar Bluff
Turng, Shu-Ying, St. Louis
Tutera, Dominic F., Kansas City
Tuthill, Herbert, Barrington, Ill. (Member Jackson County Medical Society)
Tuttle, Jay F., Farmington
Twedell, Donald L., St. Louis
Twin, Edward J., Kansas City

* Doctor of Osteopathy.

Twyman, Richard A., Kansas City
Tygett, Glen J., Cape Girardeau
Tygett, Joseph N., Cape Girardeau
Tyrrell, Terrence, St. Louis

U

Uhlemeyer, Henry A., St. Louis
Ulett, George A., St. Louis
Ulett, Pearl C., St. Louis
Umali, Emil C., Gerald
Underwood, Dick H., Kansas City
Underwood, Johnson, III, Kansas City
(Member Clay County Medical Society)
Ungvari, Joseph C., St. Louis
Usher, Albert E., Kansas City
Utterman, William F., Ste. Genevieve

V

Vacca, Joseph B., St. Louis
Vah, Houshang, St. Charles
Vaaranant, Mani, Lexington
Valach, Frank J., St. Louis
Valdes, Orestes S., St. Louis
Valins, Eugene, Kansas City
Valko, Robert J., Florissant
Valtierra, Cesar A., St. Louis
Van Biber, James T., Independence
Van Buskirk, Terrance E., Kansas City
Van Buskirk, William C., Kansas City
Van Dervoort, Robert L., Jr., Columbia
Vandiver, Virgil D., Chillicothe
Vandover, John T., St. Louis
Van Dyke, Elmer H., Sedalia
VanGoidsenhoven, Guy, St. Louis
Van Matre, R. M., Washington, D. C.
(Member St. Louis Medical Society)
Van Norman, Robert T., St. Louis
Van Thullenar, Philip A., Kansas City
Van Vranken, Eugene E., Jefferson City
Vardeleon, Roger V., St. Louis
Varma, D. K., Poplar Bluff
Vart, Gary R., St. Charles
Vatterott, Paul B., St. Ann
Vaughan, I. Russell, St. Louis
Vaughan, Robert W., St. Louis
Vaughn, James W., Kansas City
Vaughn, Leroy W., Royal Oak, Mich.
(Member St. Louis Medical Society)
Velasco, Ernest, St. Louis
Veluz, Benito I., St. Louis
Venegoni, Robert L., Kansas City
Vensel, Lee H., Springfield
Ventus, Manuel A., Chesterfield
Vera, Enrique, Kansas City
Verda, Dominic J., St. Louis
Verde, Julian N., St. Louis
Vergara, Gerardo G., Shawnee Mission, Kan.
(Member Jackson County Medical Society)
Verzola, Eufemio, Herculaneum
Vescovo, Paul C., Jr., Kansas City (Member Platte County Medical Society)
Vest, James C., St. Louis
Viamontes, Gloria E., St. Louis
Viamontes, Jorge A., St. Louis
Vianzon, Elizabeth, St. Louis
Vibulakaopun, Pairat, Bonne Terre
Vickar, Garry, Florissant
Victor, Frank R., Kansas City
Vidals, Victor G., Kansas City
Vidhecharoen, S., Florissant
Viers, Wayne A., St. Louis
Vighi, James R., St. Charles
Vijungco, Herminia D., Chesterfield
Vilar, Pio M., Jr., Chesterfield
Villahermosa, Juanito L., Savannah
Villalobos, Richard, St. Louis
Villamar, Elizabeth N., St. Louis
Villanueva, Angela A., Kansas City
Villarama, Antonio P., Ballwin
Villarama, Lilia F., Manchester
Vilmer, Charles, N. Kansas City
Viloria, Alberto B., St. Louis
Vincent, Jack C., Kansas City
Vinson, Harold A., Tulsa, Okla. (Member West Central County Medical Society)
Vinyard, Jack L., Joplin
Viraghaty, Julius G., Glencoe
Virant, John A., St. Louis
Virden, Herbert, Kansas City
Viril, Leonardo C., Kansas City
Vitale, Anthony J., St. Louis
Vitale, Nicholas S., St. Louis
Vitt, Alvin E., Wright City (Member St. Louis Medical Society)
Vitt, Edwin F., St. Louis
Viviano, Joseph G., St. Louis
Vogel, Arthur P., Shawnee Mission, Kan.,
(Member Jackson County Medical Society)
Vogel, Curt M., Columbia
Volk, George E., Columbia (Member Jackson County Medical Society)

Vollmar, Clarence J., Sun City, Ariz.
(Member St. Louis County Medical Society)
Vollmar, Lewis C., Jr., Columbia (Member St. Louis County Medical Society)
Votaw, Robert E., St. Louis
Voth, Harold W., Kansas City
Vournas, Christopher G., St. Louis

W

Wacker, Leo L., St. Louis
Waddell, Kenneth E., Springfield
Waddle, Theodore L., Dexter
Wade, Frederick E., Kansas City
Wadlow, Ernest E., St. Joseph
Wagan, Primitiva C., St. Louis
Waggoner, Charles M., Columbia
Waggoner, Sharon E., St. Joseph
Wagner, John R., St. Louis
Wagner, Paul J., Kansas City
Wakefield, Franklin H., Sun City, Ariz.
(Member Jackson County Medical Society)
Wakeman, Jasper N., Springfield
Wakeman, Jasper Newton, Jr., Springfield
Wakerlin, G. E., San Francisco, Calif.
(Member Boone County Medical Society)
Wald, Donald M., N. Kansas City
Wald, Stanley M., St. Louis
Waldman, Richard A., Kansas City
Walker, Ambrose T., Thayer
Walker, Francis S., St. Louis
Walker, Harvey, Jr., St. Louis
Walker, J. Leslie, St. Louis
Walker, James C., Kansas City
Walker, John W., Sturgeon Bay, Wisc.
(Member Jackson County Medical Society)
Walker, Larry G., St. Joseph
Walker, Orville C., Jr., Independence
Walker, Paul W., Joplin
Walker, Willard B., St. Louis
Walker, William M., Springfield
Wall, Harry C., Kansas City
Wall, Joe A., Houston
Wall, Leonard A., Kansas City
Wall, Lester E., Kirkwood
Wallace, Edgar S., Mexico
Wally, John W., Kansas City
Walsh, James W., St. Louis
Walter, Archie L., Sedalia
Walter, Kenneth E., St. Louis
Walter, William L., St. Louis
Walters, Harold E., St. Louis
Walters, Henry W., St. Louis
Walters, John H., Columbia
Walters, Laura, Columbia
Walterscheid, John H., Hannibal
Walther, Roy A., Jr., Chesterfield
Waltman, Stephen, St. Louis
Walton, Franklin E., St. Louis
Waltrip, Roy T., Jr., Sikeston
Waltz, Charles A., Kansas City
Waltz, James R., Liberty
Walz, Bruce J., St. Louis
Wanamaker, John M., Rock Port
*Wang, George Y. M., Belton (Member Jackson County Medical Society)
Wang, Hubert K. W., Helmuth, N. Y.
(Member Buchanan County Medical Society)
Wantuck, Donald K., Springfield
Ward, Jay W., Columbia
Ward, Joe, Lexington
Ward, Robert L., St. Louis
Warren, James C., St. Louis
Warren, William H., Ava (Member Greene County Medical Society)
Warres, Herbert L., Springfield
Washburn, J. Loren, Versailles
Washington, Edward L., Columbia
Washington, Walter, St. Louis
*Wasserman, Gary S., Kansas City
Wasserman, Helman C., St. Louis
Waterfield, Jim R., Springfield
Waterman, Franklin M., Liberty
Waters, Hugh R., St. Louis
Wathanacharoen, Suchint, Kansas City
Watkins, Garey, St. Louis
Watkins, George L., Jr., La Jolla, Calif.
(Member Mineral Area County Medical Society)
Watson, Ethel, Independence
Watson, Linley E., Columbia
Watson, Trevor F., Columbia
Wattenberg, Carl A., St. Louis
Watts, Byron E., Jefferson City
Watts, Clark, Columbia
Waxelman, Roger J., Manchester
Waxman, Herbert J., Kansas City
Waxman, Jane Z., Kansas City
Wayland, Thomas A., Linn Creek (Member Cole County Medical Society)

- Wayne, Sherwyn J., Kirkwood
Webb, Harry E., Kansas City
Webb, Marion A., Clayton
Webb, Paul B., St. Louis
Webb, Paul B., Jr., St. Louis
Webber, Wm. B., St. Louis
Weber, J. R., St. Louis
Weber, Sol, Clayton
Wee, George C., Ellisville
Weed, Randal W., St. Joseph
Weeks, George R., Cape Girardeau
Weeks, Paul M., St. Louis
Weide, Allan R., N. Kansas City (Member
Clay County Medical Society)
Weiford, Edward C., Kansas City
Weiler, Thomas J., Chesterfield
Weinand, Ernest E., St. Joseph
Weinhaus, Robert S., St. Louis
Weir, Don C., St. Louis
Weir, Robert K., Kansas City
Weir, Royal A., Ballwin
Weis, Matthew W., Villa Ridge
Weisman, Renate D., St. Ann
Weiss, Howard, St. Louis
Weiss, James M. A., Columbia
Weiss, Stuart, St. Louis
Weldon, Clarence S., St. Louis
Well, Julius W., Palmyra
Wells, Donald E., Kansas City
Wells, James A., Kansas City
Wells, John H., Kansas City
Werner, Amos, St. Louis
Werner, Zilia, St. Louis
Welsh, Laurence C., St. Louis
Weltscheff, Christo A., Windsor
Wempe, G. Raymond, Maryville
Wenneker, Alvin S., St. Louis
Wenner, Herbert A., Kansas City
Wentzel, Louis R., St. Louis
Werner, Dean F., N. Kansas City (Member
Clay County Medical Society)
Werner, Franklin C., Kansas City
Werner, William A., St. Louis
Werth, Joseph, Jefferson City
West, Harold D., Kansas City
West, Joseph W., St. Louis
Westerfeld, Roy A., St. Charles
Westerman, Henry C., University City
Westerman, Robert N., St. Louis
Westhoff, D. Douglas, Jefferson City
Westrup, Ellsworth A., Webster Groves
Wetzel, Gus S., Clinton
Weyerich, Leon F., St. Louis
Weyerich, Noel F., Chesterfield
Weygandt, Glenn R., St. Louis
Wheeler, Charles B., Kansas City
Wheeler, John H., Kansas City
Wheeler, Robert L., Harrisonville
Whitaker, James H., Kansas City
Whitaker, Topsy H., East Prairie
White, Barry B., Poplar Bluff
White, Bruce I., St. Louis
White, Charles H., Kansas City
White, Eugene F., Rolla
White, James S., Kansas City
White, Joseph, Columbia
White, Newton B., St. Louis
White, R. Ned, Springfield
White, Stoughton F., Kansas City
White, William E., Kansas City
White, William H., Jr., Clayton
Whiteman, John R., Kansas City
Whitener, Miles C., St. Louis
Whitener, Paul R., Chesterfield
Whitlock, C. Courtney, Springfield
Whitman, Doyle C., Shawnee Mission, Kan.
(Member Jackson County Medical
Society)
Whitmore, J. Stewart, Kansas City
Whitsell, Ora E., St. Joseph
Whittaker, Charles K., Kansas City
Whitten, John S., Cape Girardeau
Whitten, Marion F., Carthage
Whittico, James M., St. Louis
Wiant, James R., St. Louis
Wichienkuer, P., St. Louis
Wicks, Edwin O., Kansas City
Wiedershine, Leonard J., St. Louis
Wiegand, Herbert C., St. Louis
Wieman, Harry K., Joplin
Wien, Irving A., Kansas City
Wienke, Eugene, St. Louis
Wiggins, Roland L., Columbia
Wilber, Richard B., St. Louis
Wilber, Robert D., Kansas City
Wilbers, Raymond H., Mexico
Wilbois, Ronald P., St. Louis
Wilcox, Ruth E., Joplin
Wilcoxon, William B., Bowling Green
Wiles, Jack N., West Plains
Wilhelm, K. G., Columbia
- Wilhelm, Warren F., Kansas City
Wilkins, Michael S., Kansas City
Wilkinson, Charles B., Kansas City
Wilkinson, David, St. Louis
Wilkinson, Everett A., Kansas City
Willcox, Roger, Branson
Willcoxon, Robert L., Joplin
Williams, Andrew F., Columbia
Williams, Carol F., St. Louis
Williams, Fenton A., Kansas City
Williams, Frank R., Kansas City
Williams, George P., Kansas City
Williams, Jerome, St. Louis
Williams, John M., Liberty
Williams, John W., Oak Grove
Williams, John W., Springfield
Williams, Joseph C., Jr., Kansas City
Williams, Paul A., Fulton
Williams, Ray D., St. Louis
Williams, Robert D., Kansas City
Williams, Robert S., Mexico
Williams, Roland D., Kansas City
Williams, Starks J., Kansas City
Williams, Thomas A., Leawood, Kan.
(Member Jackson County Medical
Society)
Williams, Walter R., St. Louis
Williamson, George L., N. Kansas City
(Member Clay County Medical Society)
Williamson, Walter E., St. Louis
Willis, H. Robert, St. Louis
Willman, Charles R., St. Joseph
Willman, Martin L., St. Louis
Willman, Vallee L., St. Louis
Willoughby, James W., Kansas City
Willoughby, Jean B., Kansas City
Willumsen, Henry C., St. Joseph
*Wilson, A. W., Culver City, Calif. (Mem-
ber St. Louis Medical Society)
Wilson, Alice H., Neosho (Member Jasper
County Medical Society)
Wilson, Charles F., Cape Girardeau
Wilson, Clifford C., Kansas City
Wilson, David E., Kansas City (Member
Clay County Medical Society)
Wilson, Fred K., Winston
Wilson, George P., Columbia
Wilson, Hugh M., St. Louis
Wilson, John E., Columbia
Wilson, Keith S., Clayton
Wilson, Loys C., Kennett
Wilson, Roy E., Springfield
Wilson, Susan L., St. Louis
Wilucki, Melvin R., St. Louis
Wimmer, Warren J., St. Louis
Windmiller, Myrl E., Columbia
Windsor, Charles E., St. Louis
Windsor, David G., Savannah (Member
Buchanan County Medical Society)
Winegar, Alvon C., Jefferson City
Winer, Herbert J., Kansas City
Winer, Michael H., St. Louis
Winer, Nathaniel, Kansas City
Winkelman, Esther B., Kansas City
Winn, George W., Boonville
Winsky, Arlen D., Springfield
Winston, Bernard H., Kansas City
Winter, John H., Bridgeton
Winter, Tyrus D., St. Louis
Winterer, Roland A., St. Louis
Winters, Kathleen, St. Louis
Wipfler, Earl J., Jr., St. Charles
Wirthlin, Edward H., St. Louis
Wise, George W., Kansas City
Wise, Gordon F., Springfield
Wise, Leslie, New Hyde Park, N. Y.
(Member St. Louis Medical Society)
Wise, Morris F., Kansas City
Wissmath, Frank S., Clayton
Wissner, Seth, St. Louis
Withers, Orval R., Kansas City
Withrow, John B., N. Kansas City (Member
Clay County Medical Society)
Witt, Clyde M., St. Louis
Witt, Frederick W., St. Louis
Wittgen, Edward M., St. Louis
Wittler, Harry A., St. Louis
Wittmer, Samuel C., Springfield
Wochner, R. Dean, St. Louis
Woehl, Joseph J., Kansas City
Wolf, Jack W., Kansas City
Wolf, Mitchel L., St. Louis
Wolfe, Edward, St. Louis
Wolff, Dolores P., St. Louis
Wolff, Gerald, St. Louis
Wolff, Harold D., St. Louis
Wolff, Paul G., Cape Girardeau
Wolff, Ray J., St. Ann
Wolfgang, Edwin D., St. Louis
Wolfgram, Philip H., Smithville
Wommack, Fred L., Crane
Wong, George, Jr., Springfield
Wood, Bennett R., St. Louis
- Wood, George F., Fulton
Wood, George H., Carthage
Wood, James A., Clayton
Wood, Tom, Poplar Bluff
Woodman, Grey M., Clinton, Ia. (Member
Jackson County Medical Society)
Woodruff, Calvin W., Columbia
Woodruff, Sharon, Washington (Member
St. Louis County Medical Society)
Woods, Harold V., Blue Springs
Woods, Ralph E., Clayton
Woods, S. Dwight, Kansas City
Woods, Walton C., Kansas City
Woodward, William W., Kansas City
Wool, Gerald, St. Louis
Wooldridge, Wilfred E., Springfield
Woolsey, Joyce E., St. Louis
Woolsey, Robert M., St. Louis
Workman, Charles E., N. Kansas City
(Member Clay County Medical Society)
Workman, George M., Hermann
Worley, Charles A., Sweet Springs (Member
Pettis County Medical Society)
Wortmann, Robert F., Kansas City
Wotawa, William J., St. Louis
Wray, Rolla B., Nevada
Wray, R. C., Jr., St. Louis
Wright, Earl J., N. Kansas City
Wright, Robert P., Kansas City
Wu, Shuh-Min, Kansas City
Wu, William Q., Kansas City
Wulff, George J. L., Jr., St. Louis
Wurt, Dieter, Arnold
Wurster, Jerry B., Kansas City
Wurster, W. Joel, Kansas City
Wyatt, Lois C., St. Louis
Wyrsh, Leo M., Jr., Springfield
- Y**
- Yaeger, Gerald A., St. Charles
Yalcin, Enver, St. Louis
Yancey, Daniel L., Springfield
Yannakakis, John E., Florissant
Yanow, Mitchell, St. Louis
Yap, Mardonio J. R., St. Louis
Yarbro, John W., Columbia
Yasin, Fazle Mobin, St. Louis
Yates, Darrel W., St. Louis
Yazdi, A. M., St. Louis
Yeager, Helen, Columbia
Yin, Pochin H., St. Louis
Ylagon, Amando, Jr., St. Louis
Yoon, Jin Soo, Chillicothe
Yore, Richard W., St. Louis
Yoskit, Harry, Festus
Youll, Donald V., Kansas City
Youmans, Ronald A., Kansas City
Young, Calvin C., Jr., Joplin
Young, James E., Kansas City
Young, Jesse W., Kansas City, Kansas
(Member Jackson County Medical
Society)
Young, Paul R., Omaha, Neb. (Member
Boone County Medical Society)
Young, Robert B., Rolla
Young, Thomas J., St. Joseph
Youngblood, James P., Kansas City
Younge, Walter A., Lovejoy, Ill. (Member
St. Louis Medical Society)
Younger, Anita, St. Louis
Younger, Ernest, St. Louis
- Z**
- Zacharias, David L., Kansas City
Zacharias, K. P., Chesterfield
Zack, Ashley S., Kansas City
Zahn, Robert L., Springfield
Zahony, Ivan, Prairie Village, Kan. (Member
Jackson County Medical Society)
Zahorsky, Carroll L., Kansas City
Zahorsky, Theodore S., St. Louis
Zeiffen, Joel L., St. Louis
Zeigler, Joseph M., Creve Coeur
Zekert, Horst, St. Louis
Zellermayer, Jacob, Shawnee Mission, Kan.
(Member Jackson County Medical
Society)
Ziegelmeier, John S., St. Louis
Zimmerman, Herbert B., St. Louis
Zimmerman, Joseph A., Kennett
Zingale, Frank G., St. Louis
Zink, Oscar C., St. Louis
Zinn, Marcia V. E., Leawood, Kan. (Mem-
ber Jackson County Medical Society)
Zivnaska, Fred R., St. Louis
Zografakis, George H., St. Louis
Zoller, David D., Kansas City
Zuckner, Jack, St. Louis
Zukowski, Edward T., Chesterfield
Zwart, Claude H., St. Louis
Zverenz, Bruno H., Kansas City
Zwirn, Benjamin H., Florissant

* Doctor of Osteopathy.

Roster of Members by County Societies

(See Instructions on Page 383)

ADAIR COUNTY (North Central Counties Medical Society)

ANDREW COUNTY MEDICAL SOCIETY (Savannah 64485)

Baker, Warren C., Savannah
Kelley, Gilbert B., Savannah
Villahermosa, Juanito L., Savannah

ATCHISON COUNTY (Northwest Missouri Medical Society)

AUDRAIN COUNTY MEDICAL SOCIETY (Mexico 65265)

Ajans, Z. A., 704 E. Monroe
Boyce, John M., 2703 Clark Ln., Columbia 65201
Bradley, William W., Box 47, Centralia 65240
Comfort, George D., 1415 S. Morris
Cotter, John H., 217 E. Jackson
Daut, Donald W., 200 East Monroe
Davis, Leonard L., Jr., 314 E. Promenade
Dwyer, Thomas L., 119 E. Love St.
Ekern, H. Peter, 1415 S. Morris St.
Garcia, Charles L., Mexico
Hoxworth, Gerald, 415 E. Monroe
Huq, Md. Nasrul, 212 E. Monroe
Jolly, Benjamin N., 112 N. Clark Ave.
Jolly, William H., 112 N. Clark Ave.
Kallenbach, Glen P., P. O. Box 249
Lankford, Harold D., 117 E. Monroe
Mullen, Mary E., 200 E. Monroe
O'Brien, Harry F., Mexico
Reddin, Patrick, Wallmart Bldg.
Rodes, Ned D., Mexico
Siripipat, Fallop, 222 E. Monroe
Wallace, Edgar S., 210 E. Monroe
Wilbers, Raymond H., 113 E. Monroe
Williams, Robert S., P. O. Box 147

BARRY COUNTY (Ozarks Medical Society)

BARTON COUNTY MEDICAL SOCIETY (Lamar 64759)

Arnold, Herbert M., Lamar
Bickel, Vern T., 202 West 2nd
Cain, Alvin R., Lamar
Carroll, Thomas W., P. O. Box 368
Guldner, Edmond, 1103 Broadway

BATES COUNTY (West Central Missouri Medical Society)

BOLLINGER COUNTY (Mineral Area Medical Society)

BOONE COUNTY MEDICAL SOCIETY (Columbia 65201)

Abadir, Rushdy, 807 Stadium
Adams, Harold D., 401 Keene
Allcorn, Donald J., 807 Stadium
Allen, Joseph E., 5813 St. Charles Rd.
Allen, Robert W., 2007 S. Country Club Dr.
Allen, William C., 508 W. Briarwood Lane
Almond, Carl H., 807 Stadium
Alyea, James O., 807 Stadium
Anderson, Ivan A., 606 Medavista
Anderson, Philip C., 807 Stadium
Anderson, Thomas R., Strollway Center
Anis, Onssy H., 807 Stadium
Arnold, Richard C., P. O. Box 53
Asel, Norman D., 1502 E. Broadway
Aylward, Howard J., Jr., 807 Stadium
Baker, A. Sherwood, 807 Stadium
Baker, James M., 16 S. 10th St.
Barbee, Charles W., 401 Keene St.
Barbero, Gilulio J., 807 Stadium
Barnes, Asa, Jr., Ellis Fischel Cancer Hosp.
Beck, Marcus R., 2703 Clark La.
Beckman, Fred N., Ellis Fischel State Cancer Hosp.
Black, Samuel P. W., 300 S. Glenwood St.
Blackwell, Charles W., 201 W. Broadway
Bourgeois, Curtis, P. O. Box 118, Rocheport 65279
Bradshaw, William D., 3408 "B" Woodrail Terr.
Brubaker, Leonard L., 807 Stadium
Brukardt, Diane, Student Health Service

* Doctor of Osteopathy.

Bruner, Claude R., Star Rt. B, Box 5-HD, Camdenton 65020
Bumgarner, James E., 1504 E. Broadway
Bumgarner, Roger W., P. O. Box 975
Burns, Thomas W., 310 E. Brandon Rd.
Butt, James H., 800 Stadium
Byer, John A., 807 Stadium
Bynum, William R., P. O. Box 998
Callen, Kenneth E., 807 Stadium
Canoy, Nestor R., Ellis Fischel State Cancer Hosp.
Carnahan, Charles E., 3801 Cedar Lane
Carolla, Robert L., 807 Stadium
Chalkley, Judson L., Boone County Hosp.
Chapel, James L., 807 Stadium
Chapman, Charles L., 1916 Ridgemont
Cheek, Charles W., 3205 Lansing Dr.
Chiasson, E. Chaille, P. O. Box 1077
Cochran, Donald Q., 1502 E. Broadway
Cohen, Harry B., 807 Stadium
Colwill, Jack M., Countryside, R.F.D. 5
Cooper, Maurice E., 1000 Wayne Rd.
Cooperstock, Michael, 807 Stadium
Cope, James C., 1502 E. Broadway
Craig, Herbert W., 807 Stadium
Crowley, Wm. J., Jr., 11 S. Williams
Culley, Thomas S., 807 Stadium
Cundiff, Harry C., Jr., 807 Stadium
Damell, Thomas F. B., 9A Lakewood Estates, Branson 65616
Davis, David, 801 Crestland Ave.
Davis, William E., 807 Stadium
DeLima, Clarence A., Harlem Valley Psychiatric Center, Wingdale, N. Y. 12594
Denninghoff, James C., 201 W. Broadway
Dexheimer, Frank R., 401 Keene
Dexter, James D., 807 Stadium
Dickhaus, Donald, 807 Stadium
Eggers, George W. N., Jr., 807 Stadium
Elyassi, Hedayatollah, 807 Stadium
Esterlv, James A., 807 Stadium
Farrell, Corinne, 807 Stadium
Favazza, Armando R., 807 Stadium
Ferneau, James E., 401 Keene
Foote, Jerry E., 1504 E. Broadway
Frazier, Robert Edward, 113 W. Broadway
Fried, Frederick E., 807 Stadium
Fristoe, Frank, Jr., 807 Stadium
Frueh, Bartley R., 909 University Ave.
Fuchs, George J., Jr., 1504 E. Broadway
Galeota, William R., 807 Stadium
Gambill, Alice F., 807 Stadium
Gammel, George E., Boone County Hospital Laboratory
Garrett, Glen H., 909 University Ave.
Garrotto, Lewis J., 814 Hulen Dr.
Gaunt, William D., 807 Stadium
Godshalk, M. Fredrica, 807 Stadium
Gordon, Bruce J., 807 Stadium
Griffin, William T., 807 Stadium
Groshong, Ted D., 807 Stadium
Hall, David G., 807 Stadium
Hardwicke, Henry M., Ashland 65010
Harris, Hugh S., Jr., 801 Cowan Dr.
Harris, Robert J., 2505 E. Broadway
Harrison, Winston E., 201 W. Broadway
Hart, William M., 807 Stadium
Haw, Marvin T., Jr., 1807 Jackson
Hawkins, James C., 806 Stadium
Heimberg, Murray, 807 Stadium
Heimbürger, Elizabeth M., M-330, 807 Stadium
Heimbürger, Richard A., M-349, 807 Stadium
Henry, Lawrence D., P. O. Box 998, 2703 Clark La.
Henstorf, Harold R., Univ. of Mo.
Henzel, John H., N-303, 807 Stadium
Hickcox, John P., 3205 Lansing Ave.
Hofmeister, Roger W., 807 Stadium
Holmes, Richard A., 807 Stadium
Horoehowski, Alejandro, 808 Cornell
Hubbell, Ira G., 302 McNab Dr.
Hussain, Syed A., 807 Stadium
Hyatt, Robert W., 113 W. Broadway
Ide, Carl H., 600 Laurel Dr.
Jackson, Robert L., 807 Stadium
James, Elizabeth J. P., 807 Stadium
James, Ronald C., 610 W. Blvd. South
Johnsgard, Larry S., 807 Stadium
Johnson, Richard E., Boone County Hosp.
Johnston, William D., Ellis Fischel State Cancer Hosp.
Joseph, Donald J., 807 Stadium
Kamal, Waseem, 807 Stadium
Kaplan, Michael F., 1409 Overhill Rd.

Kardinal, Carl G., Business Loop 70 & Garth
Kays, Kenneth, 1502 E. Broadway
Keitzer, Walter Ford, 807 Stadium
Keown, Kenneth K., 807 Stadium
Kerr, S. Earl, 1308 Fieldcrest
Kilburn, Kaye H., VA Hospital, Rm. 570
King, Robert J., 1502 E. Broadway
Kubin, Milford T., 541 Seventeen Mile Dr. Pacific Grove, Calif. 93950
Kunz, Roger D., P.O. Box 975
Lababidi, Zuhdi, 807 Stadium
LaChance, Leopold, 110 W. Sneed, Centralia 65240
Ladenson, Roland P., 16 S. 10th St.
Lamberti, Joseph, 807 Stadium
Landhuis, L. R., 3205 Lansing Dr.
Lee, Sung Ae, 3315 E. 76th, Tulsa, Okla. 74125
Leech, Charles A., 1504 E. Broadway
Leeper, Claude K., 807 Stadium
Leeper, Sidlee W., 1504 E. Broadway
Lehr, James L., 807 Stadium
Lim, Jit Kim, 807 Stadium
Lindberg, Donald, Route 4
Litton, Lynn O., 3205 Lansing Ave.
Litwiller, R. W., 1312 W. Broadway
Lodwick, Gwilym S., 911 La Grange
Logue, John T., 1504 E. Broadway
Lohmar, Roland E., 113 W. Broadway
Lucas, Fred V., 807 Stadium Rd.
McCluer, Shirley, McHaney Hall, 807 Stadium
McCord, E. Scott, 807 Stadium
McElroy, Glenn L., 3205 Lansing Ave.
McLelland, Bruce A., 807 Stadium
Mackaman, Bert J., M752, University of Missouri
Marco, Philip J., 1015 College Park
Marienfeld, Carl J., 807 Stadium
Markivee, Carroll R., 807 Stadium
Mayer, William D., 1 Ridgeley Rd.
Meyer, John C., 401 Keene
Meyers, David S., 807 Stadium
Miller, Leroy J., 1502 E. Broadway
Millikan, Larry E., 807 Stadium
Mitchell, Franklin L., 2208 Danforth Ct.
Mitchell, Lynn D., 401 Keene
Monroe, C. Dean, 803 Stadium
Montie, Joseph E., 807 Stadium
Moon, Agnes H., Rusk Rehabilitation Center
Moranville, Benedict A., 1504 E. Broadway
Morgan, Philip E., Eye Research Foundation of Mo., 404 Portland
Mosby, Larry D., 107 E. Brandon Rd.
Mullins, Maurice F., 608 West Blvd. South
Mussell, Howard L., 807 Stadium, M-343
Navarro, Manuel L., 807 Stadium
Nichols, W. Kirt, 807 Stadium
Nieuwenhuizen, Maarten, 3916 Faurort Dr.
Nolph, Georgia B., 801 Westport Dr.
Oestreich, Alan, N217 University Medical Center
O'Keefe, Stephen, 840 S. Wood, Chicago, Ill. 60612
O'Neill, Joseph A., 807 Stadium
Orth, Oliver G., 11 S. Williams
Overholser, Milton D., 807 Stadium
Payne, David E., 1901 Ridgemont
Payne, John W., 3205 Lansing Ave.
Pearman, Carl C., Box 354
Perez-Mesa, Carlos, Ellis Fischel State Cancer Hosp.
Perry, Michael C., 807 Stadium
Peterson, Charles R., Rm. 132, Rusk Rehabilitation Center
Pfefer, Leland U., 1504 E. Broadway
Pickard, Clarence M., 113 W. Broadway
Pickens, James Milton, 807 Stadium
Pingelton, William B., 113 W. Broadway
Politte, Lenard L., 401 Keene
Prendergast, Thomas J., Jr., 807 Stadium
Puckett, Charles, 807 Stadium
Rall, Kenneth L., 1121 Danforth Dr.
Ridenhour, C. E. Gene, Rt. 1, Cedar Grove Estates
Rikli, Arthur E., 4003 Faurort Dr.
Rink, Richard A., E-307, 807 Stadium
Rodgers, Elrie P., Box 993
Rogers, Wallace A., Jr., 807 Stadium
Rosenholtz, Mitchell J., 1955 W. Eldridge, Roseville, Minn. 55113
Ross, Gilbert, Jr., 807 Stadium
Royer, Jerry A., 807 Stadium
Russell, Garth, 3205 Lansing Ave.
Saab, Salim, Univ. of Mo. Medical Center
Saunders, Carol S., TD4, 807 Stadium
Scheuber, Charles, 1504 E. Broadway

Schewe, Elmer J., Jr., 3205 Lansing Ave.
See, William B., 1504 E. Broadway
Senhauser, Donald A., 807 Stadium
Shaheen, Eleanor, 807 Stadium
Sights, Warren P., Jr., 807 Stadium
Silver, Donald, 807 Stadium
Silvers, Robert G., 610 W. Stewart Rd.
Simonds, John F., 807 Stadium
Smith, Jason N., Jr., 701 West Blvd. South
Smith, Joe R., 1506 E. Broadway
Somers, John E., 11 S. Williams
Sosebee, Lee A., 3205 Lansing Ave.
Spratt, John S., Jr., 105 S. Glenwood Ave.
Spurgeon, Milo J., 404 Edgewood Ave.
Steffens, Richard S., Jr., 506 Joaquin, Redding, Calif. 96001
Stephenson, Hugh E., Jr., 807 Stadium
Stewart, Wellington B., Dept. of Pathology
M-646, Univ. of Mo. Medical Center
Stoy, Robert P., 201 W. Broadway
Stradford, H. Todd, Rt. 1, 82 E. Chaparral
Struessel, Kenneth F., 113 W. Broadway
Templer, Jerry W., 807 Stadium
Terry, Boyd E., 807 Stadium
Thomas, Horace E., 1504 E. Broadway
Thomas, J. Regan, 3205 Lansing
Thomas, Robert M., 3205 Lansing
Thompson, Ian M., 807 Stadium
Thomson, James Myron, Jr., Louisiana State University Medical Center, Shreveport, La. 71101
Tinsley, John C., Jr., 16 S. Tenth St.
Trumbower, William D., 807 Stadium
Van Dervoort, Robert L., Jr., 401 Keene
Vogel, Curt M., 3707 Woodridge Ct.
Waggoner, Charles M., 201 W. Broadway
Wakerlin, G. E., 2120 Pacific Ave., San Francisco, Calif. 94115
Walters, John H., 1027 Hickory Hill Dr.
Walters, Laura, 11 S. Williams St.
Ward, Jay W., 401 Keene
Washington, Edward L., 1504 E. Broadway
Watson, Linley, 800 Stadium Rd.
Watson, Trevor F., 1504 E. Broadway
Watts, Clark, Univ. of Mo. Medical Center
Weiss, James M. A., 807 Stadium
White, Joseph M., 111 Jesse Hall
Wiggins, Roland L., 408 N. Garth
Wilhelm, K. G., VA Hospital
Williams, Andrew F., 807 Stadium
Wilson, George P., P. O. Box 644
Wilson, John E., 401 Keene
Windmiller, Myrl E., 1504 E. Broadway
Woodruff, Calvin W., 807 Stadium
Yarbro, John W., 802 Fairview Rd., Apt. C12
Yeager, Helen, 807 Stadium
Young, Paul R., University of Neb., College of Medicine, Omaha, Neb. 68105

BUCHANAN COUNTY MEDICAL SOCIETY (St. Joseph)

Acuff, R. Philip, 702 Jule St. 64501
Ahad, Abdul, 3400 Frederick Ave. 64502
Ames, William H., 902 Edmond St. 64501
Andres, Edward H., 902 Edmond 64501
Bartulica, Nicholas, 422 N. 7th 64501
Beck, Paul M., Kirkpatrick Bldg. 64501
Beheler, Edward M., 422 N. 7th St. 64501
Benson, Scott C., 324 N. 6th St. 64501
Berney, Francis J., 1225 N. 10th 64501
Bristow, Robert B., 416 N. 7th 64501
Bryant, Sydney L., 902 Edmond St. 64501
Butler, Elza F., 902 Edmond St. 64501
Callman, George, State Hosp. No. 2 64502
Carpenter, George T., 902 Edmond St. 64501
Challener, William A., 111, 902 Edmond 64501
Christ, Martin H., 1402 Faraon 64501
Corder, Robert L., Jr., 510 Francis 64501
Cox, John P., 902 Edmond St. 64501
Craig, Owen W. D., Kirkpatrick Bldg. 64501
Craig, Richard O., 320 Pioneer Bldg. 64501
Day, Maxwell, 1410 Highland, McAllen, Tex. 78501
Decanini, Mario, P. O. Box 11 64502
DuMont, Clement C., 1905 Francis St. 64501
Dyer, Gary, 1302 Faraon 64501
Ferguson, Luther J., 2907 Francis St. 64501
Fischer, Martin J., 902 Edmond 64501
Fisher, Joseph L., 7th & Jule Sts. 64501
Forman, George W., 2412 Ashland 64506
Fox, Gerald E., Methodist Hospital, 8th & Faraon 64501
Fuson, Levi H., Route 3 64506
Garrison, David L., 902 Edmond 64502
Grant, Claude S., 2726 Sublette Way 64506
Grimes, Manning E., Kirkpatrick Bldg. 64501

* Doctor of Osteopathy.

Grinstein, Alberto, c/o Ypsilanti State Hospital, Ypsilanti, Mich. 48197
Gunter, Joe S., 902 Edmond St. 64501
Handler, Eric, Kirkpatrick Bldg. 64501
Harner, Casper G., 902 Edmond St. 64501
Hayes, Paul W., 902 Edmond St. 64501
Herman, Allen I., 510 Francis 64501
Howden, Thomas L., 2723 Francis 64501
Hughes, Judson M., 3306 Jennifer La. 64506
Ide, Lucien W., P. O. Box 830 64502
Inocencio, Eddie C., 902 Edmond 64501
Jimenez, Jose, Box 263 64502
Kline, Carlyn M., 17 Stonecrest St. 64506
Kline, Edmund W., 510 Francis St. 64501
Knepper, Paul A., 902 Edmond St. 64501
Kulowski, Jacob, 5106 Stonecrest Terr. 64506
Lee, Carleton H., 2716 Douglas 64506
Lehman, Philip C., 1331 Village Dr. 64506
McDaniel, John R., 902 Edmond St. 64501
McDonald, Wallace, 29 Ridgeland 64505
McDonald, Wilbur P., 301 N. 8th St. 64501
Maginn, Richard L., 702 Jule St. 64501
Marston, F. James, Jr., 902 Edmond St. 64501
Martin, John N., 416 N. 7th 64501
Meriwether, Don R., 902 Edmond 64502
Minton, Robert S., Rt. 2, 64505
Moen, Berwyn H., 902 Edmond St. 64501
Monta, Mande D., 8th & Faraon 64501
Morse, John P., 902 Edmond St. 64501
Morse, Marvin, 2702 Faraon St. 64501
Mothershead, John L., 2603 Frederick Ave. 64501
Muench, Albert H., 412 N. 25th 64501
Mullican, Charles N., 510 Francis 64501
Mullinax, Orr, Missouri Methodist Hospital, Rm. 23, 64501
Ness, Carl K., 902 Edmond St. 64501
O'Brien, Liam, State Hospital No. 2 64502
O'Connor, William B., 510 Francis St. 64501
Paculdo, Nora R., 3400 Frederick 64502
Partamian, Krikor O., 9th & Edmond 64501
Paulson, Gordon S., 510 Francis 64501
Petersen, Harold E., 2902 Frederick Ave. 64506
Pfeffer, Robert L., 1915 N. 29th St. 64506
Pifer, Lawrence H., 925 5th Ave. 64505
Potter, Caryl A., Jr., Pioneer Bldg. 64501
Prokop, Joseph R., #29 Stonecrest 64501
Raphel, Jose, 1111-49th Terr. 64506
Redmond, William, Corby Bldg. 64501
Roberts, Phyllis Grant, 2607 Cornell Ave. 64506
Rogers, John T., 2502 Ashland Ave. 64506
Rosenthal, Irwin I., State Hospital No. 2 64502
Rost, William B., 2221 N.W. Extension Blvd. 64506
Ryan, John H., 2901 Lovers La. 64506
Sanchez, Salvador Valera, 3400 Frederick 64506
Senne, Herbert C., 223 N. 7th St. 64501
Sheppard, Julius K., 902 Edmond 64501
Shevlin, Charles F., 902 Edmond St. 64501
Silliman, Y. E., 2715 Francis 64501
Sklenar, Donald E., 228 Illinois Ave. 64504
Stacy, Winton T., 1215 N. 24th St. 64506
Stallard, Donald J., 902 Edmond St. 64501
Stevens, Edward M., 702 Jule St. 64501
Stuber, Robert R., 1325 Village Dr. 64501
Thompson, F. Gregg, 111, 2714 Ashland Ave. 64506
Tobin, Robert F., 1321 Village Dr. 64506
Wadlow, Ernest E., 510 Francis St. 64501
Waggoner, Sbaron E., 301 Illinois Ave. 64504
Walker, Larry G., 702 Jule 64501
Wang, Hubert K. W., P. O. Box 235, Helmut, N. Y. 14079
Weed, Randal W., 702 Jule St. 64501
Weinand, Ernest E., 902 Edmond St. 64501
Whitsell, Ora E., 802 N. 23rd St. 64506
Willman, Charles R., 2216 Highly St. 64502
Willumsen, Henry C., 902 Edmond St. 64501
Windsor, David G., Rt. 1, Savannab 64485
Young, Thomas J., 1817 N. Belt 64501

BUTLER-WAYNE-RIPLEY-CARTER COUNTY MEDICAL SOCIETY (Poplar Bluff 63901)

Adibi, Fereydoon, 666 Lester
Bajaj, Arun R., 217 Oak
Barbour, Marvin R., Kneibert Clinic
Biggs, Fred J., Jr., 808 N. Main
Brookreson, Alton D., 1500 Lurlyn
Brookreson, Alton F., 217 Oak St.
Caldwell, Fred, Kneibert Clinic
Camp, Richard V., Jr., 111 Ash, Campbell 63933

Canlas, Emilio M., P. O. Box 1009
Carlson, E. C., 623 Pine
Christy, John P., 623 Pine Blvd.
Engelhardt, Robert C., Kneibert Clinic
Fraser, Richard A., 621 Pine
Gernstetter, Sangwill L., P. O. Box 337
Hansbrough, Eugene T., 623 Pine Blvd.
Harwell, J. Lester, Plantation House, Apt. 104, 2400-44th St., Lubbock, Tex. 79412
Hecker, Joseph E., Kneibert Clinic
Hoja, W. Alexander, Kneibert Clinic
Hunt, John L., Box 56, 3600 Wilcox
Kelley, Kenneth H., 623 Pine Blvd.
Kneibert, Fred L., Kneibert Clinic
Laatsch, Robert H., 1333 Meadow Ln.
Ladyman, George H., 623 Pine St.
Leroux, Gene, Doniphan 63935
Lestmann, Henry E., 202 Plum, Doniphan 63935
Loughead, John R., 1201 Lurlyn Dr.
McLane, Jerry F., 330 N. 2nd St.
McPbeeters, James W., Sr., 330 N. 2nd St.
Macauley, Bernard J., P. O. Box 238, Doniphan 63935
Markel, Arthur D., Kneibert Clinic
May, Albert L., Jr., 330 N. 2nd St.
Miller, David V., Kneibert Clinic
Parker, Arthur C., Jr., Kneibert Clinic
Plunkett, Littleton J., Jr., 330 N. 2nd
Ramirez, Ricardo M., Kneibert Clinic
Raper, Charles A., 330 N. 2nd St.
Reddy, A. N., 623 Pine Blvd.
Reddy, Sarvotham K., 623 Pine Blvd.
Robertson, William D., Poplar Bluff
Ruff, T. Eugene, Kneibert Clinic
Shriver, Ronald G., 623 Pine Blvd.
Stubblefield, C. F., VA Hosp.
Till, Bennie N., 2030 Meadows
Tinsley, Austin R., 2nd and Oak
Traxel, William Louis, 623 Pine Blvd.
Tuma, Arthur T., 215 Oak St.
Turner, James H., 217 Oak St.
Turner, Kirby L., 623 Pine
Turner, William F., 217 Oak St.
Varma, D. K., 2506 N. Main
White, Barry B., 330 N. 2nd St.
Wood, Tom, Kneibert Clinic

CALDWELL COUNTY (Grand River Medical Society)

CALLAWAY COUNTY MEDICAL SOCIETY (Fulton 65251)

Brown, John J., 101 E. 6th St.
Brown, Katherine S., 1304 Vine St.
Cremer, William J., State Hosp. No. 1
Domke, Herbert R., 221 W. High, Jefferson City 65101
Durst, Henry, 610 Court St.
Gisb, Rutledge, 5 E. 5th St.
Groce, George, 820 Jefferson St.
Hill, James E., 820 Jefferson St.
Jackson, Vernon B., State Hosp. No. 1
Osborn, Richard A., 820B Jefferson
Peterson, Donald B., Country Club Estates
Ritterbusch, James K., State Hosp. No. 1
Sydow, Henry A., 10 W. 6th
Williams, Paul A., 820 Jefferson
Wood, George F., 1700 Plaza Dr.

CAMDEN COUNTY

Carnell, B. M., Camdenton 65020
(Member Mid-Missouri County Medical Society)
Garrison, T. W., Camdenton 65020
(Member Mid-Missouri County Medical Society)
Holley, Donald B., Camdenton 65020
(Member Mid-Missouri County Medical Society)
Wayland, Thomas A., Linn Creek 65052
(Member Cole County Medical Society)

CAPE GIRARDEAU COUNTY MEDICAL SOCIETY (Cape Girardeau 63701)

Ashley, Hugh V., 425 Franklin
Babn, Charles F., 801 S. Mount Auburn Rd.
Barnes, Seth S., 1854 Broadway
Blankenship, Dale M., Doctors' Park
Bowman, William K., 14 Doctors' Park
Burford, Edwin K., Jr., 35 Doctors' Park
Campbell, Edward D., 937 Broadway
Chapman, Jean A., 801 S. Mount Auburn Rd.
Cochran, Jo R., Doctors' Park
Coulson, Forest H., 19 Doctors' Park
Cozean, Charles H., Jr., 937 Broadway
Crowe, John T., 937 Broadway

Dinkins, James A., 36 Doctors' Park
Downey, Jon Patrick, 15 Doctors' Park
Dzur, James R., 14 Doctors' Park
Edwards, Donald E., 937 Broadway
Eller, Gordon, 1912 Broadway
Elrod, Dennis B., 211 N. Sprigg St.
Essmyer, Joseph K., 937 Broadway
Herbert, Charles T., 824 Good Hope St.
Holcomb, John K., 35 Doctors' Park
Honaas, Trygve O., 14 Doctors' Park
Horn, Paul C., 400 Broadway
Hunt, Robert S., 10 Doctors' Park
Jaeger, Joseph N., 208 S. High St., Jackson
63755

Johnson, Earl W., 937 Broadway
Johnson, Ernest D., 937 Broadway
Jones, David N., 15 Doctors' Park
Jung, Christopher H., 35 Doctors' Park
Jung, J. Marshall, Box 417, Ilmo 63754
Kasten, Melvin C., 1209 Sailer Circle
Keim, John H., 1845 Woodlawn
Kim, Yong W., 825 Good Hope
Kinder, James A., 937 Broadway
Kinder, Jerry L., Doctors' Park
Koldys, Kenneth, Doctors' Park
Kratz, Paul E., 2560 Gordonville Rd.
Lovinggood, Thomas A., 2505 Allendale
McDonald, Eugene F., 225 W. Main, Jack-
son 63755

McGinty, Charles P., 10 Doctors' Park
Magaletta, George E., 937 Broadway
Oehler, William F., 213 N. Sprigg St.
Otto, Thomas G., 1912 Broadway
Parsons, D. LeRoy, 35 Doctors' Park
Rapp, Harold B., 1011 N. Henderson St.
Rawlings, Fred E., 1607 Berthing Ave.
Ridings, G. Ray, 937 Broadway
Ridings, Harold D., 937 Broadway
Ritter, C. John, 801 S. Mount Auburn Rd.
Ritter, Carl F., 937 Broadway
Ritter, Raymond A., 2542 Allendale Dr.
Ritter, Raymond A., Jr., 1912 Broadway
Roberts, Perry, Doctors' Park
Seabaugh, L. R., Doctors' Park
Seabaugh, Wm. O. L., 24 N. Sprigg
Shoss, Milton, 937 Broadway
Sides, Stanley D., 14 Doctors' Park
Sparkman, Thomas C., 15 Doctors' Park
Spence, Paul A., 35 Doctors' Park
Stewart, Wendell K., 723 North Sunset
Talbert, Clifford R., 801 S. Mount Auburn
Rd.

Terry, James W., Jr., 18 Doctors' Park
Tygett, Glenn J., 727 Bellevue, Apt. 4B
Tygett, Joseph N., 17 Doctors' Park
Weeks, George R., 937 Broadway
Whitten, J. Steven, 35 Doctors' Park
Wilson, Charles F., 714 Broadway
Wolff, Paul G., 1819 Broadway

CARROLL COUNTY (Grand River Medical Society)

CARTER COUNTY (Butler-Wayne-Ripley-Carter County Medical Society)

CASS COUNTY (West Central Missouri Medical Society)

CEDAR COUNTY (West Central Missouri Medical Society)

CHARITON-MACON-MONROE- RANDOLPH COUNTY MEDICAL SOCIETY

Aguilera, Trinidad J. A., Moberly Medical
Clinic, 301 Grand Ave., Moberly 65270
Baker, Josephine D., Moberly 65270
Barnett, Floyd A., Paris 65275
Bautista, Rogelio, 324 Circle Dr., Moberly
65270
Campbell, James E., Macon 63552
Chute, W. Deward, Moberly 65270
Cohrs, Clarence C., Moberly 65270
Collins, Gretchen D., Macon 63552
Dreyer, Philip V., Huntsville 65259
Eggleston, Donald E., Macon 63552
Fleming, J. Will, Jr., Moberly 65270
Fleming, Thomas S., Moberly 65270
Harms, Florian L., Salisbury 65281
Hori, Jose M., Community Memorial Hosp.
Moberly 65270
Huber, Lasley E., Moberly 65270
Hudson, G. R., Moberly 65270
Miller, D. Herbert, 8555 S. Lewis, Apt. 201,
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Streeter, Roderick D., 245 Union Blvd., St.
Louis 63108
Stuart, Daniel D., Brunswick 65236
Tompson, Robert V., 423 E. Logan, Moberly
65270

• Doctor of Osteopathy.

CHRISTIAN COUNTY (Ozarks Medical Society)

CLARK COUNTY (Lewis-Clark-Scotland County Medical Society)

CLAY COUNTY MEDICAL SOCIETY

Adams, Howard D., Suite 6, Westown Pl.,
Liberty 64068
Allain, James J., 2700 Hospital Ave., N.
Kansas City 64116
Allan, James R., #6 Westown Pl., Liberty
64068
Allen, Louis A., 2800 Hospital Dr., N. Kan-
sas City 64116
Andrews, Berneil W., 2700 Hospital Dr.,
N. Kansas City 64116
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Arst, Herbert E., 408 N.E. 68th St., N.
Kansas City 64118
Balhuizen, John 5601 N. Antioch Rd., Kan-
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Kansas City 64116
Beeks, John W., P. O. Box 11009, Kansas
City 64119
Benson, Larry E., 2700 Hospital Dr., N.
Kansas City 64116
Boone, Daniel C., 5800 N. Grand Ave.,
Kansas City 64118
Bowles, Richard P., 114 N. Water St., Liber-
ty 64068
Brahmacupta, Nanthana, 107 S. Spring St.,
Excelsior Springs 64024
Brizio-Molteni, Loredana, 1441 Hillside,
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Burke, Emmet K., 5140 Antioch Rd., Kan-
sas City 64119
Castillo, Michael E., 2601 Kendallwood
Pkwy., Kansas City 64119
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Springs 64024
Chiles, David R., 620 Commercial Ave.,
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Cooper, Barry R., 2800 Hospital Dr., N.
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Curnow, Richard B. Westowne Offices, Liber-
ty 64068
Deligeorges, John, 7010 N. Cherry, Kansas
City 64118
Denton, Robert E., Smithville 64089
Dernoncourt, John E., Smithville 64089
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N. Kansas City 64116
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Kansas City 64119
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Kansas City 64116
Fakhoury, Donald A., 4030 N. Oak St.,
Kansas City 64111
Fischer, Edward H., Suite 415, 2929 Balti-
more Ave., Kansas City 64108
Fischer, Jose, 2700 Hospital Dr. 64116
Flanders, Virgil E., 2022 W. 91st St., Lea-
wood, Kan. 66206
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City 64116
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sas City 64119
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Hayes, Lawrence L., 8630 N. Oak, Kansas
City 64155
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Kansas City 64116
Ise, Frank H., 2030 Swift Ave., N. Kansas
City 64116
King, Phillip E., 529 N. Fairview, Liberty
64068
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McCluggage, Newton C., 2700 Hospital Dr.,
N. Kansas City 64116
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City 64114
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Muro, F. Del, 5601 Antioch Rd., Kansas City
64119
Musgrave, David E., Excelsior Springs
64024
Myers, David William, Jr., Commercial Ave.
and Marisa St., Smithville 64089
Nourbakhsh, Mahmoud M., Platte Medical
Clinic, Platte City 64079
Patterson, Carroll D., 2900 Hospital Dr.
64116
Perico, Carlos J., 405 E. 19th Ave., Kansas
City 64116
Pileggi, Felix A., 405 E. 19th St., N. Kansas
City 64116
Purcell, P. L., Smithville 64089
Reeder, Charles C., 620 Commercial Ave.,
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Revare, Paul, 3245 Chippewa Dr., Kansas
City 64116
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sas City 64195
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Rodas, Rizalina, 2700 Hospital Dr., N. Kan-
sas City 64116
Ross, Robert M., 7010 N. Cherry, Gladstone
64118
Sanders, George E., 617 A Willow Dr., Lee's
Summit 64063
Sawyer, Floyd E., 5350 N. Oak St. Traffic-
way, Kansas City 64118
Schertz, Truman B., 2700 Hospital Dr., N.
Kansas City 64116
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celsior Springs 64024
Slaughter, Carl R., 1001 N. Woodland, Kan-
sas City 64118
*Smith, Charles H., 2025 Swift, N. Kansas
City 64116
Somoza, Jose R., 2800 Hospital Dr., North
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Soper, William D., 11 Westowne Center,
Liberty 64068
Sportsman, Weldon L., 7504 N. Oak St.
Trafficway 64118
Stratman, Clarence A., 6002-A N. Antioch
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Rd., Kansas City 64119
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och Rd., Kansas City 64119
Vilmer, Charles 2030 Swift, N. Kansas City
64116
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Kansas City 64116
Waltz, Charles A., 201 E. 21st, N. Kansas
City 64116
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Werner, Dean F., 2025 Swift St., N. Kansas
City 64116
Werner, Franklin C., 5140 Antioch Rd.,
Kansas City 64119
Williams, John M., 102 S. Forest Ave., Lib-
erty 64068
Williams, Robert D., 6700 Troost, Kansas
City 64131
Williamson, G. L., 2030 Swift, N. Kansas
City 64116
Wilson, David E., 8630 N. Oak Trafficway,
Kansas City 64155
Withrow, John B., 2800 Hospital Dr., N.
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Wolfram, Philip H., 620 Commercial, Smith-
ville 64089

Workman, Charles E., 2700 Hospital Dr.,
N. Kansas City 64116
Wright, Earl J., 2800 Hospital Dr., N. Kan-
sas City 64116

CLINTON COUNTY MEDICAL SOCIETY

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Oenberger, Larry A., Plattsburg 64477
Spalding, Wilber B., Plattsburgh 64477
Sweiger, James H., Plattsburg 64477

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Bowe, Edwin Earl, 915 Leslie Blvd.
Bradley, William B., 1705 Greenberry
Bregant, Robert E., 1505 Southwest Blvd.
Busby, William E., 917-A Leslie
Clark, Kendall A., 226 E. Dunklin
Cooper, Charles W., 423 Cherry St.
Courter, Larry P., 1505 Southwest Blvd.
Cox, William A., 812 Swifts Highway
Davison, Walter F., Jr., 913 Leslie Blvd.
Doerhoff, Adelia, Shepherd Hills Dr.
Doerhoff, Alan, Shepherd Hills Dr.
Exon, C. Stuart, 1505 Southwest Blvd.
Files, James B., Charles E. Still Hospital
Fullgrabe, E. A., 1914 Green Meadow Dr.
Garner, Lynn M., 403 Meier Dr.
Garner, Royal S., 1804 Southwest Blvd.
Gentry, Merritt L., Route 4, Reeds Spring
65737

*Giffen, L. E., 420 E. High
Gordon, James S., 915 Leslie Blvd., Suite E
Guhleman, Henry V., Jr., 506 E. High
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Handler, Fred P., 614 Boonville Rd.
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Kanagawa, Harold K., 701 W. High
Klebba, Larry B., P. O. Box 403
Leslie, James T., Jr., 1433 Southwest Blvd.
Lloyd, Earl L., Riviera Heights, Holts Sum-
mit 65043

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Matthews, John I., 701 W. High
Maxey, Hugh W., 3204 Breckenridge,
Springfield, Ill. 62706

Meier, Francis X., 1913 Hayselton Dr.
Meinershagen, Charles W., 111 Forest Hill
*Nemer, Robert J., Vienna 65582

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Ragland, John E., Linn 65051

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Ryan, Thomas J., 1433 Southwest Blvd.
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Schokker, Johannes, 2009 E. McCarty
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Werth, Joseph, 917 Leslie Blvd.
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Avery, Willard B., 329 Main St.
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Hata, Daikichi, 329 Main St.
Humphreys, Edward T., 329 Main St.
Stuart, Byron M., 329 Main St.
Winn, George W., 329 Main St.

CRAWFORD COUNTY (Mid-Missouri County Medical Society)

DADE COUNTY (Dallas-Hickory-Polk-Dade Medical Society)

DALLAS-HICKORY-POLK-DADE COUNTY MEDICAL SOCIETY

Barnett, Charles H., Bolivar 65613
Bauer, Harold A., 3823 S. Campbell, Spring-
field 65804
Griffin, Evelyn, Buffalo 65622
Griffin, Olin A., Jr., Buffalo 65622
Harrell, Henry J., Rt. 1, Box 535, Summer-
field, Fla. 32691
Kahler, Monte R., Bolivar 65613
McCraw, Doyle C., Bolivar 65613
McNeel, Lee A., Jr., Greenfield 65661
Robinson, George G., Humansville 65674

DAVIESS COUNTY (Grand River Medical Society)

DEKALB COUNTY (Grand River Medical Society)

DENT COUNTY (Mid-Missouri County Medical Society)

DOUGLAS COUNTY (South Central Counties Medical Society)

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Croom, Dorwyn W., Malden 63863
Dunmire, George Q., Kennett 63857
English, Wallace D., Cardwell 63829
Hopkins, Florian G., Gideon 63848
Huang, Jun-Shen, P. O. Box 526, 607 Teaco
Rd., Kennett 63857
Isidoro, Oscar O., 2728 Brown Ave., Poplar
Bluff 63901

Legan, John K., Kennett 63857
Miltnerberger, Paul C., Kennett 63857
Morehead, William E., Malden 63863
Palenske, Robert L., Homersville 63855

Pu, Pin H., P. O. Box 827, Kennett 63857
Rigdon, John D., 201 College, Kennett
63857

Santos, Romeo I., Kennett 63857
Sisler, Maynard Lee, 217 College, Kennett
63857

Soonattrakul, Wuthisak, P. O. Box 231, Ken-
nett 63857

Tarver, Quinton, Kennett 63857
Wilson, Loys C., Kennett 63857

Zimmerman, Joe A., Kennett 63857

FRANKLIN-GASCONADE-WARREN COUNTY MEDICAL SOCIETY

Aulenbacher, Carl E., #1 Emerson Dr.,
Washington 63090

Baker, Donald L., Union 63084
Bonney, Samuel C., Washington 63090

Bozzo, Raymond J., Washington 63090
Brenner, Paul A., Owensville 65066

*Calvin, Glen, Union 63084
Crane, John B., Washington 63090

Crawford, Robert M., Sullivan 63080
de la Torre, John J., Sullivan 63080

Eisenmann, Benjamin P., New Haven 63068
Eyermaun, H. Walter, Warrenton 63383

Farrell, S. L., Washington 63090
Hoelscher, Harold F., Warrenton 63383

Lee, In Kook, 205 Elm, Washington 63090
Mays, Frank G., Washington 63090

Mitchell, Thomas J., St. Clair 63077
Moellenhoff, Robert W., Washington 63090

Murney, Joseph A., Washington 63090
Post, John P., Washington 63090

Richardson, George A., Union 63084
Richardson, William R., Union 63084

Royse, Roy P., Sullivan 63080
Ryan, John B., Washington 63090

Schmidt, Charles A., Gerald 63037
Shea, James G., Washington 63090

Sincos, Charles H., 205 Elm, Washington
63090

Strehman, Benjamin G., Union 63084
Umali, Emil C., Hwy. 50, Gerald 63037

Workman, George M., Hermann 65041

GASCONADE COUNTY (Franklin-Gasconade-Warren County Medical Society)

GENTRY COUNTY (Northwest Missouri Medical Society)

GRAND RIVER MEDICAL SOCIETY (Caldwell-Carroll-Livingston-Grundy- Davies-Harrison-Linn-Mercer-DeKalb Counties)

Allen, E. Warren, Carrollton 64633
Bales, Eugene L., Carrollton 64633

Bohnsack, Ralph W., Brookfield 64628

Brennan, Raymond J., Chillicothe 64601

Broyles, Watkins A., Bethany 64424

Cofe, T. N., P. O. Box 905, Chillicothe
64601

Conrad, Joseph, P. O. Box 905, Chillicothe
64601

Cross, Albert D., Trenton 64683

Daley, Frank R., Hamilton 64644

Dixon, John R., Brookfield 64628

Dowell, J. Larry, Pattonburg 64670

Duffy, Oliver F., Trenton 64683

Ellsworth, Willard, Cainsville 64632

Fair, William L., Chillicothe 64601

Fuson, William A., Trenton 64683

Gale, Joseph F., Chillicothe 64601

Galvez, Sisenande P., Jr., 105 South Kansas,
Marceline 64658

Gary, George, Marceline 64658

Gearhart, Merriam, Bethany 64424

Gilliland, Charles E., Cameron 64429

Howell, Billy D., Brookfield 64628

Kimberlin, Herbert C., Trenton 64683

McArtor, Thomas R., Browning 64630

Magil, Joseph S., P. O. Box 850, Morenci,
Ariz. 85540

Mandler, George, Chillicothe 64601

Nixon, Edward E., Gallatin 64640

Platz, John H., Carrollton 64633

Rose, John F., 1024 Grandview, Chillicothe
64601

Smith, Robert W., 616 W. Locking, Brook-
field 64628

Staton, R. Hamilton, Carrollton 64633

Szymanski, Stanley R., 329 N. Rollins, Ma-
con 63552

Trinidad, Hermanito R., 913 Webster, Chil-
licothe 64601

Vandiver, Virgil D., Rt. 2, Chillicothe 64601

Wilson, Fred K., Winston 64689

Yoon, Jin Soo, 103 11th, Chillicothe 64601

GREENE COUNTY MEDICAL SOCIETY (Springfield)

Alcancia, Elpidio Y., 1423 N. Jefferson
65802

Allen, Jerry H., 1211 S. Glenstone St.,
65804

Allen, Stephen C., 1235 E. Cherokee 65802

Allison, James B., 2200 E. Sunshine 65804

Ancheta, Apolinario A., 1715 Boonville
65803

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65804

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Auner, Cecil R., 600 S. Glenstone St. 65802

Back, Donald K., 1211 S. Glenstone St.
65804

Bailey, Alan B., 609 Cherry 65806

Baldwin, Richard, 600 S. Glenstone St.
65802

Barnhill, Floyd R., 1443 N. Robberson
65802

Bartley, Richard L., Taylor Health Center,
SMSU 65802

Beisner, Donald H., 2900 S. Fremont 65804

Bennoch, Shane L., 1423 N. Jefferson
65802

Benson, Ronald G., 404 E. Battlefield 65807

Bentley, John D., 1900 S. National 65804

Berry, Paul T., 1740 S. Glenstone St. 65804

Blades, Ross D., 1211 S. Glenstone St.
65804

Bonebrake, MacDonald, Rm. 304, Profes-
sional Bldg., 609 Cherry 65806

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Borja, Egbert R., 1423 N. Jefferson 65802

Brent, Lanny R., 1443 N. Robberson 65802

Brian, William J., 229 Professional Bldg.
65806

Broadus, Loren, 1550 E. Sunshine 65804

Brooks, John E., 609 Cherry 65806

Brown, David W., Professional Bldg. 65806

Brown, James T., 2222 E. Berkeley 65804

Burkey, Jordan W., Professional Bldg. 65806

Busiek, Erwin F., Rm. 319, Professional
Bldg., 609 Cherry 65806

Busiek, Paul J., 1717 E. Grand 65804

Busiek, Urban J., Professional Bldg. 65806

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St. 65804

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Cheek, J. William, 1900 S. National 65804

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 Clayton, Edgar L., Professional Bldg. 65806
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 Collier, Frederick C., 2433 Marlan St. 65802
 Collins, Douglas D., Professional Bldg. 65806
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 Cooper, C. Wesley, 1211 S. Glenstone 65802
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 Corry, Francis M., 1211 S. Glenstone 65804
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 Ferguson, John L., 1550 E. Sunshine 65804
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 Fite, James E., 1423 N. Jefferson 65802
 Fogerson, Virginia L., 900 S. Pickwick 65804
 Fogle, Philip R., 1900 S. National 65804
 Francis, William C., 600 S. Glenstone St. 65802
 Gaska, Walter J., 1211 S. Glenstone 65804
 Gentry, Michael A., 1722 "K" S. Glenstone 65804
 Gerdes, John A., St. John's Hospital 65804
 German, Walter A., Jr., 1211 S. Glenstone St. 65804
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 Glover, Jack F., 1550 E. Sunshine 65804
 Gose, Don F., 1550 E. Sunshine 65804
 Gwin, Edward, 1515 E. Sunshine 65804
 Haen, Charles J., 1630 N. Jefferson 65803
 Hall, David W., Rt. 2, Rogersville 65742
 Hall, Durward G., 2442 S. Fremont 65804
 Hamburg, Frederic L., 114 Professional Bldg. 65806
 Hanan, Ernest B., 724 E. Kingsbury 65804
 Hanss, Armand W., 3500 Cherry 65804
 Harmon, Ben C., 1211 S. Glenstone St. 65804
 Harrison, Stratton W., Professional Bldg. 65806
 Harvey, Harold D., 2030 S. National 65804
 H'Doubler, Charles E., 1443 N. Robberson 65802
 H'Doubler, Francis T., Jr., 1443 N. Robberson 65802
 H'Doubler, Peter B., 609 Cherry St., Suite 114 65806
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 Hollis, Richard W., Professional Bldg. 65806
 Holmes, Daniel E., Route 9, Box 191 65804
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 Hoover, H. Lee, Jr., 1330 E. Walnut St. 65802
 Horton, James D., 1235 E. Delmar 65804
 Hubbard, Sally L., 901 S. National 65802
 Huewe, Douglas A., 609 Cherry 65806
 Hulstra, Johannes F. W., 1211 S. Glenstone St. 65804
 Ippensen, John H., 1443 N. Robberson 65802
 Isaac, Anita M., 1423 N. Jefferson 65802
 Ivy, Henry B., 600 S. Glenstone St. 65802
 Jameson, James E., Rm. 118, Professional Bldg., 609 Cherry 65806
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 Johnson, Fritz M., 1900 S. National, Suite 2600 65804
 Johnson, George A., 229 Professional Bldg. 65806
 Johnson, George L., 1443 N. Robberson 65802
 Johnson, Joseph C., Jr., 1211 S. Glenstone 65804
 Johnson, Warford B., Rm. 330, Professional Bldg., 609 Cherry 65806
 Johnson, Warford B., II, 1443 N. Robberson 65802
 Johnson, William F., Professional Bldg. 65806
 Johnston, Joseph L., 2855 Southern Hills Blvd. 65804
 Jones, Harold L., 1550 E. Sunshine 65804
 Kelly, James C., 1211 S. Glenstone 65804
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 Kinder, Doyle D., 1211 S. Glenstone 65804
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 Klingner, George M., Jr., 1630 N. Jefferson 65803
 Klinkerfuss, George H., 609 E. Cherry 65802
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 Knabb, Kenneth E., 1630 N. Jefferson St. 65803
 Kohbermann, Kobby J., 1900 S. National 65804
 Kolze, Vernon W., 600 S. Glenstone 65802
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 Langston, Walter R., 1453 Fairway Terr. 65804
 Le Fevre, Philip J., 2030 S. National 65804
 Leidinger, Karl J., P. O. Drawer Y, Republic 65738
 Lemmon, George B., Prof. Bldg. 65806
 Lewis, Noel R., Rt. 1, Box 450, Stafford 65757
 Lin, Chi-Hsi, 2030 S. National 65804
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 Lockhart, Charles E., Professional Bldg. 65806
 Loeb, Richard H., 1211 S. Glenstone 65804
 Lorenc, Ernest, Professional Bldg. 65806
 Lovett, Robert L., 1423 N. Jefferson 65802
 Lowe, Horace A., Jr., 114 Professional Bldg. 65806
 Lundman, Hugh, 116 Professional Bldg. 65806
 Lurie, Harold H., 600 S. Glenstone St. 65802
 Luzucky, Michael H., 609 Cherry 65806
 Lynch, Thomas W., Professional Bldg., Suite 306 65806
 McAlhany, Howard J., 609 Cherry St. 65806
 McCrea, William A., 1211 S. Glenstone 65804
 McKinsey, John J., 1900 S. National 65804
 McLaughlin, Richard D., 117 Professional Bldg. 65806
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 Maher, Robert W., Professional Bldg. 65806
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 Menchetti, Don E., 1630 N. Jefferson Ave. 65803
 Mentgen, Carl N., 1550 E. Sunshine 65804
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 Moore, De Armond, 1211 S. Glenstone 65804
 Mostert, F. Stanley, 2298 S.E. Harrison, Stuart, Fla. 33494
 Morton, Paul C., 1508 E. Stanford 65804
 Moseley, F. Thomas, 609 Cherry St. 65806
 Napper, Marvin L., Professional Bldg. 65806
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Jones, Edna M., Clinton 64735
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Scott, Kenneth F., Hospital Drive, Clinton 64735
Smith, James O., Clinton 64735
Smith, William J., Windsor 65360
Weltscheff, Christo A., 120 S. Main, Windsor 65360
Wetzel, Gus S., Clinton 64735

HICKORY COUNTY
(Dallas-Hickory-Polk-Dade County Medical Society)

HOLT COUNTY
(Northwest Missouri Medical Society)

HOWARD COUNTY MEDICAL SOCIETY

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Leech, Maurice P., Fayette 65248
Marshall, William G., Glasgow 65254
Shaw, William J., Jr., Fayette 65248

HOWELL COUNTY
(South Central Counties Medical Society)

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Harless, Morris S., 4320 Wornall Rd. 64111
Harlow, Lloyd M., 2462 Brooklyn St. 64127

- Harrin, William R., 4320 Wornall Rd. 64111
Harris, David J., 24th & Gillham Rd. 64108
Harris, Lanny W., 6400 Prospect 64132
Hart, Lawrence W., 6301 Rockhill Rd. 64131
Hartman, Greg L., 224 Medical Plaza, 4320 Wornall Rd. 64111
Hartwig, Frederick H., 6400 Prospect 64132
Hartwig, Raymond W., 6546 Wenonga Rd. Shawnee Mission, Kan. 66208
Hausheer, Herman J., 1515 W. Truman Rd. Independence 64050
Hawkins, Doris, 6301 Rockhill Rd. 64131
Hays, Larry V., 4320 Wornall Rd. 64111
Hazen, Robert M., 6400 Prospect 64132
Heilman, Edward J., 6700 Troost 64131
Hellerstein, Stanley, 24th & Gillham Rd. 64108
Hellman, Richard, 2411 Holmes 64108
Hellman, Richard G., 6540 Wenonga Rd. 66208
Hemaya, Rizk M., 600 E. 22nd 64108
Henry, Clarke L., 4320 Wornall Rd. 64111
Herdoiza, Alfonso W., 751 E. 63rd 64110
Herman, Edwin M., 701 E. 63rd 64110
Herrman, George V., Star Rt. #1, Box 103B, Sunrise Beach 65079
Hervey, Wm. H., II, Wornall Rd. at 44th 64111
Herver, John W., Wornall Rd. at 44th 64111
Hibbard, Blaine Z., 4320 Wornall Rd. 64111
Hickerson, William H., 604 W. Maple Ave., Independence 64050
Hill, Jack H., Trinity Lutheran Hosp. 64108
Hink, Frederick W., 10229 Independence Rd., Independence 64054
Hirsch, Joe E., 4643 Wyandotte St. 64112
Hoadley, William D., 6400 Prospect 64132
Hodgson, Frank H., 4301 Main St. 64111
Hoeck, George P., Jr., 6400 Prospect 64132
Hoepfer, Samuel D., 12516 Grandview Rd., Grandview 64030
Hoepfer, Sam D., Jr., 12921 Grandview Rd., Grandview 64030
Hoffman, Jacob S., 751 E. 63rd St. 64110
Hoffmann, Alan L., 1734 E. 63rd 64110
Hoffmann, Lee Martha, 4914 Belinder Rd., Shawnee Mission, Kan. 66205
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Holder, Thomas M., 4320 Wornall Rd. 64111
Hollinger, Lloyd A., 6700 Troost 64131
Hollweg, Kenneth C., 4320 Wornall Rd. 64111
Holman, Joseph G., 4620 J. C. Nichols Parkway 64112
Holt, Waldo S., 4620 Nichols Parkway 64112
Holton, Edward B., 10901 Winner Rd., Independence 64052
Hook, Waller C., 10010 El Monte, Shawnee Mission, Kan. 66207
Hopkins, James P., 6700 Troost 64131
Hornstra, Robijn K., 6724 Troost 64131
Hughes, Michael F., 305 W. 43rd 64111
Hungate, Carroll P., Professional Bldg. 64106
Hunkeler, John D., 6700 Troost 64131
Hunt, Thomas R., 6400 Prospect 64132
Hunter, Martin P., 4706 Broadway 64112
Hunzicker, Warren J., P. O. Box 139, 64141
Huse, William J., 2929 Baltimore 64108
Hyde, Lawrence L., 6700 Troost 64131
Ingham, Walton C., 4320 Wornall Rd. 64111
Irvine, John W., 8800 E. 63rd 64133
Irwig, Fred, 4706 Broadway 64112
Jackson, Haywood R., 3317 E. 43rd St. 64130
Jacob, Walter P., 601 E. 63rd St. 64110
Jacobs, Morton, 6314 Brookside Plaza 64113
Jacobs, Walter H., 601 E. 63rd St. 64110
James, Otis E., Jr., 6306 Morningside Dr. 64113
Janes, Donald R., 4320 Wornall Rd. 64111
Jansen, Robert, 440 E. 66th 64131
Jazbi, Basharat Ullah, 24th & Gillham Rd. 64108
Jenab, Morteza, 6700 Troost 64131
Jennett, J. Harvey, Professional Bldg. 64106
Johnson, C. Laurence, Suite 525, 2929 Baltimore Ave. 64108
Johnson, Dallas A., 6700 Troost 64131
Johnson, Gareth R. P., 5107 Spring 64133
Johnson, James S., 4301 Cleveland 64130
Johnson, Joseph E., 11201 Colorado 64137
Johnson, Richard L., 6400 Prospect 64132
Johnson, Thomas M., 4620 J. C. Nichols Parkway 64112
Johnson, Thomas W., 201 E. Armour 64141
Jonas, Harry S., Jr., 24th & Cherry 64108
Jones, Gale O., 6400 Prospect 64132
Jones, Marion E., 2462 Brooklyn St. 64127
Jones, Samuel T., III, 4620 Nichols Parkway 64112
Jones, T. Reid, 411 Nichols Rd. 64112
Justus, John B., Plaza Parkway Bldg. 64112
Kahn, Marvin, 601 E. 63rd 64110
Kanarek, Joseph, 601 E. 63rd 64110
Kandt, Ray E., Jr., 6700 Troost 64131
Kantor, Julius M., 601 E. 63rd 64110
Kantor, Samuel, 6700 Troost 64131
Kartus, Irving, 9120 Ward Parkway Terr. 64114
Katt, Nicola Y., 2800 Hospital 64116
Kaufman, Andrew B., 340 Rockhill Medical Bldg. 64131
Kaufmann, Herbert H., 6724 Troost 64131
Kaul, Philip G., 4320 Wornall Rd. 64111
Kay, Billy F., 7301 Mission Rd., Prairie Village, Kan. 66208
Kayan, Jose C., 2929 Baltimore 64108
Keairnes, Harold W., 2411 Holmes 64108
Keeler, James E., 4400 Broadway 64111
Kelling, Douglas G., 7705 W. 102nd, Overland Park, Kan. 66212
Kellogg, Aurora G., 24th & Gillham Rd. 64108
Keltner, Raymond O., 4400 Broadway 64111
Kendall, Charles A., 4240 Blue Ridge Blvd. 64133
Kendall, Forrest H., 2505 W. 71st, Prairie Village, Kan. 66208
Kendall, Malcolm E., 6400 Prospect 64132
Kennard, George K., 4400 Broadway 64111
Kennedy, Timothy D., 2929 Baltimore 64108
Kent, Bela K., 6724 Troost 64131
Kernodle, Jefferson D., Box 2778 64142
Kerr, Harold H., 8121 N.W. Miami 64152
Ketterman, Grace H., 225 W. 43rd St. 64111
Ketterman, Herbert L., 11201 Colorado 64137
Kettner, Edward G., 1102 Grand Ave. 64106
Kiene, Richard H., 4320 Wornall Rd. 64111
Killen, Duncan A., 4320 Wornall Rd. 64111
Kimball, Merritt H., 610 E. 36th 64109
Kimble, Harvey S., Wornall Rd. at 44th 64111
Kindred, Lynn H., 4320 Wornall Rd. 64111
King, J. Tenbrook, 4320 Wornall Rd. 64111
Kingsbury, Helen, 6415 Sagamore Rd., Shawnee Mission, Kan. 66208
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Klein, Edward H., 7011 Roe Ave., Prairie Village, Kan. 66208
Knight, Lyle B., 108 Madison, Lee's Summit 64063
Knoch, H. Kermit, Plaza Parkway Bldg. 64112
Koon, Ben H., 6601 Rockhill Rd. 64131
Koontz, Paul G., 4320 Wornall Rd. 64111
Kopperman, Mordecai, 701 E. 63rd 64110
Koppers, Lawrence E., 6400 Prospect 64132
Korth, William M., 6300 Midnight Pass Rd., Villa 16, Siesta Key, Sarasota, Fla. 33581
Kovac, Albert P., 917 McKee 64106
Kraft, Jacob, 6700 Troost 64131
Kranson, Seymour J., 11200 Winner Rd., Independence 64052
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Kurtz, Karl J., 4320 Wornall Rd. 64111
Kyger, John E., 3612 Blue Ridge, Independence 64052
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Landers, Burnell, 6724 Troost 64131
Landis, George K., Professional Bldg. 64106
Lapi, Angelo, 2012 Stratford Rd., Shawnee Mission, Kan. 66208
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Larsen, William E., 2929 Baltimore 64108
Latham, Raymond W., 4620 Nichols Parkway 64112
Lauer, Daniel J., 4320 Wornall Rd. 64111
Layle, John K., Jr., 4320 Wornall Rd. 64111
Layton, Ira C., 6400 Prospect 64132
Lee, Gerald B., 101 Memorial Dr. 64108
Lee, Henry A., 6700 Troost 64131
Lee, King Ying, 6700 Troost 64131
Lee, Larry E., 2929 Baltimore 64108
Lee, Tae Hung, 6400 Prospect 64132
Lehner, Richard L., 4320 Wornall Rd. 64111
Leifer, William W., 701 E. 63rd St. 64110
Lentz, Clark H., BMA Tower 64141
Leo, William A., 6400 Prospect 64132
Leonidas, John C., Tufts New England Medical Center, 171 Harrison Ave., Boston, Mass. 02111
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Liang, Jing C., 17221 E. 23rd, Independence 64057
Lichter, Alexander, 601 E. 63rd St. 64110
Lichter, Joseph M., 601 E. 63rd St. 64110
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Link, Vance E., 1515 W. Truman Rd., Independence 64050
Linville, Howard E., 6700 Troost 64131
Liston, Stephen L., 24th & Cherry 64108
Lloyd, Ivan E., 1 Penn Valley Park 64141
Lockwood, Gary F., 4320 Wornall Rd. 64111
Lohrentz, Lois H., 2800 W. 50th Terr., Shawnee Mission, Kan. 66205
Long, R. Stacy, 6601 Rockhill Rd. 64131
Lopez-Plata, Roberto, 701 E. 63rd 64110
Lorenzo, E., 1820 W. 91st Pl. 64114
Lorenzo-Medina, Remedios, 509 W. 119th Terr. 64114
Lotuaco, Gamaliel G., 330 W. 47th 64112
Loutzenhiser, James K., 6400 Prospect 64132
Lowell, Paul, 4742 Liberty St. 64112
Lundgren, Fred H., Jr., 201 W. 116th 64114
Lyddon, Harold R., Jr., 75th & Troost 64131
McAfee, R. Gordon, 6400 Prospect 64132
McAnelly, George C., 511 Park 64124
McCalla, John P., 649 Huntington Rd. 64113
McCallister, Ben D., 4320 Wornall Rd. 64111
McCanse, Andrew, 4320 Wornall 64111
McCanse, Lynn R. A., 4320 Wornall Rd. 64111
McClanahan, Robert C., 1102 Grand Ave. 64106
McConahay, David R., 4320 Wornall Rd. 64111
McConchie, James E., 10901 Winner Rd., Independence 64052
McCoy, Frederick J., 4177 Broadway 64111
McCray, Glen M., 1710 Independence Ave. 64106
McCullough, Campbell C., Argyle Bldg. 64106
McDonald, Herbert L., 6700 Troost 64131
McDonnell, John F., 4320 Wornall Rd. 64111
McFarland, H. Richard, 4320 Wornall Rd. 64111
McFarland, M. Donald, 4320 Wornall Rd. 64111
McGannon, Paul T., 6400 Prospect 64132
McGuire, Thomas H., 4320 Wornall Rd. 64111
McIntosh, Donald E., 6400 Prospect 64132
McIntyre, John D., 4948 Westwood Rd. 64112
McKee, Wallace P., 4320 Wornall Rd. 64111
McKeel, Thomas B., 180 Doctors' Bldg., E. 64110
McKnelly, William V., Jr., 4801 E. Linwood Blvd. 64128
McLeod, John, 9 E. 67th St. 64113
McMillan, Thomas E., 6400 Prospect 64132
McNabney, W. Kendall, 24th & Cherry Sts. 64108
McVay, James R., V.F.W. Bldg. 64111
Maben, Sam Edward, 9406 E. 63rd 64133
MacGee, Edwin E., 4440 Broadway 64111
MacLinnis, Florence E., 4620 Nichols Parkway 64112
MacNaughton, Ralph E., 1212 S. 10th, Blue Springs 64015
MacNaughton, Robert A., 3208 W. 101st St., Leawood, Kan. 66206
Mallouk, Alexander G., 4320 Wornall Rd. 64111
Mallow, James E., 44th & Wornall Rd. 64111
Mangels, Kenneth A., 1612 W. Truman Rd., Independence 64050
Manion, Thomas S., 1515 Truman, Independence 64050
Manley, Joseph W., 4601 W. 109th, Overland Park, Ks. 66211
Manuel, Louis C., 4900 Swope Parkway 64130
Marks, Mark M., 751 E. 63rd St. 64110
Marks, Maurice I., 4949 Rockhill Rd. 64110

* Doctor of Osteopathy.

Constitution and Bylaws

of the

Missouri State Medical Association

Adopted 1903



1976 Revision

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JEFFERSON CITY, MO. 65101

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Constitution

ARTICLE I. NAME OF THE ASSOCIATION

The name and title of this organization shall be the Missouri State Medical Association.

ARTICLE II. PURPOSE

The purpose of this Association is the promotion of the science and art of medicine, the protection of public health, the betterment of the medical profession, and, by uniting with similar organizations in other states and territories of the United States, to form the American Medical Association.

ARTICLE III. MEMBERSHIP

Membership in this Association shall be limited to and include all members in good standing in component societies which hold charters from this Association.

ARTICLE IV. HOUSE OF DELEGATES

The House of Delegates shall be the legislative body of this Association and shall consist of delegates elected by the component societies as well as all Past-Presidents of the Association, the Speaker and Vice-Speaker, who will serve as Delegates-at-Large. It shall elect a Speaker and Vice-Speaker from its body. Its Secretary shall be the Secretary of the Missouri State Medical Association.

Included also in the House of Delegates shall be two student delegates, each from a different class, elected by the student body of each of the medical schools in the State of Missouri, who shall have the same rights and privileges as other delegates.

ARTICLE V. COUNCIL

The Council shall be the executive body of this Association when the House of Delegates is not in session. It shall be the judicial body of the Association when matters are referred to it for decision by the Association, by component societies or by individual members thereof. It shall consist of the President, President-Elect, Immediate Past-President, Secretary, Treasurer and the duly elected Councilors from each Councilor District. Nine members shall constitute a quorum.

ARTICLE VI. SESSIONS AND MEETINGS

Section 1. The Association shall hold an Annual Session at a place fixed by the House of Delegates, the time of which shall be fixed by the Council.

Sec. 2. Special meetings of the Association or of the House of Delegates may be called by a two-thirds vote of the Council and shall be called upon a petition signed by members equal in number to one third of the total number of delegates certified for the last Annual Session.

ARTICLE VII. OFFICERS

Section 1. The officers of this Association shall be a President, a President-Elect, three Vice-Presidents, a

Secretary, a Treasurer, a Speaker and a Vice-Speaker of the House of Delegates and ten Councilors selected as provided for.

Sec. 2. All officers except Councilors shall be elected annually. The terms of Councilors shall be two years. Half of the membership of the Council shall be elected each year. The Secretary and the Treasurer shall be elected by the Council. The delegates present from each Councilor District shall meet prior to the last day of the Annual Session and elect the Councilor from that district. In the event of death, resignation or removal of any Councilor, the Council may appoint a successor to serve until the vacancy is filled at the next Annual Session. All of the officers shall serve until their successors are elected and installed.

ARTICLE VIII. FUNDS, EXPENSES AND BUDGET

Funds shall be raised by a per capita assessment on each component society. The amount of the assessment shall be fixed by the House of Delegates. Funds may also be raised in any other manner approved by the House of Delegates. The Council shall submit an annual budget to the House of Delegates. All resolutions providing for appropriations shall be referred to the Council and all appropriations approved by the Council shall be included in the annual budget.

ARTICLE IX. REFERENDUM

At any General Meeting of the Association it may, by a two-thirds vote, order a general referendum upon any question pending before the House of Delegates. The House of Delegates may, by a vote of its members, submit any question to the membership of the Association for its vote. A majority vote of all members of the Association shall determine the question.

Petitions signed by 10% of the active members of the Association, including petitioners representing at least one half of the component Medical Societies, will initiate a referendum regarding changes in the Constitution and Bylaws or questions before the House of Delegates. A two-thirds vote of all active members of the Association responding will determine the question.

ARTICLE X. SEAL

The Association shall have a common seal. The power to change or renew the seal shall rest with the House of Delegates.

ARTICLE XI. AMENDMENTS

The House of Delegates may amend any article of this Constitution by a two-thirds vote of the delegates present and voting at any Annual Session, provided that such amendment shall have been presented in open meeting at the previous Annual Session and that it shall have been published twice during the year in the Journal of this Association or sent officially to each component society at least two months prior to the meeting at which final action is to be taken.

Bylaws

CHAPTER I. MEMBERSHIP

Section 1. Members of this Association shall be physicians whose names have been certified by secretaries of component societies to the Secretary of this Association that they are duly elected members of a component society and are legally qualified physicians practicing in Missouri except as otherwise provided. Each member must be of good moral and professional standing, and must not support, nor practice, nor claim to practice any exclusive system of medicine.

Sec. 2. No person who is under sentence of suspension or expulsion from any component society of this Association or whose name has been dropped from its roll of members shall be entitled to any of the rights or benefits of this Association.

Sec. 3. There shall be three classes of members as follow:

Active members shall be limited to those members of component societies who (1) hold the degree of Doctor of Medicine or Bachelor of Medicine, and (2) if permitted by the bylaws of the component society, members who hold the degree of Doctor of Osteopathy, and (3) are entitled to exercise the rights of active membership in their component societies, as determined by their component societies, subject to the provisions of these Bylaws.

Junior members shall be limited to those members of component societies who are serving a full-time training internship or residency in a hospital approved by the American Medical Association and shall enjoy all of the privileges of active membership.

Honor members shall be limited to Honor members of component societies, which societies have requested that active members who have reached advanced years and have long served the Association and the profession be made Honor members of the Association. They shall enjoy all the privileges of active membership and shall be exempt from the payment of dues.

Sec. 4. Associate members shall be limited to persons not provided for in the various classes of membership who are engaged in the pursuit of a medical or allied science, and by action of the component societies, become Associate members of the Association. Associate members shall have the right to attend scientific sessions and such other privileges as may be extended to them by the House of Delegates. They shall not be eligible to vote and shall be exempt from the payment of dues.

CHAPTER II. GENERAL MEETINGS

Section 1. The General Meetings shall be open to all registered members and guests.

Sec. 2. Any paper read before this Association shall be considered for publication in the Journal if the Author so desires. Such papers may be given publication priority over regularly submitted papers but shall be subject to the same editorial review and selection policies.

Sec. 3. No person in the active practice of medicine in the State of Missouri shall appear on the program of the Association unless he or she is a member of the Missouri State Medical Association or an affiliated association or organization.

CHAPTER III. HOUSE OF DELEGATES

Section 1. The House of Delegates shall meet annually at the time and place of the Annual Session. It shall remain in continuous session on the first day of the Annual Session and complete the work coming before it at that session.

All resolutions to be considered by the House of Delegates must be received at the Association office 45 days prior to the opening session of the House for publication in the handbook. Any resolution to be introduced after that time must be made available to the House of Delegates 24 hours before the session in which it is to be introduced. At least 200 copies of the resolution or funding for same must be supplied by the individual or society introducing the resolution.

At the second session of the House of Delegates, the same procedure would be followed, but such introduction would be allowed only if approved by two thirds of the delegates voting. It (The House of Delegates) shall meet on the last day of the annual session to receive the report of the Nominating Committee and complete unfinished business and the election of officers. The same procedure with regard to resolutions would be followed at that session, but it would then take a unanimous vote of the House to allow such introduction. At the discretion of the Speaker, these conditions would not apply for resolutions of good wishes, condolences, congratulations and others of a personal nature.

Sec. 2. Each component county society shall be entitled to send each year one delegate or one alternate to the House of Delegates for each fifty full paid members or fraction thereof in the Association on December

31 of the previous year, plus one additional delegate or alternate for each one hundred members or a major fraction thereof; provided, however, that each component society which is composed of two or more county societies shall be entitled to at least one delegate from each of the counties of which it is composed; and provided that when two or more counties hereafter combine into a hyphenated society, such society shall not lose any delegates by reason thereof; however, such delegates must reside or practice in the county they represent. Alternate delegates may be elected from the entire membership of the component medical societies. All Past-Presidents of the Association, the Speaker and Vice-Speaker shall serve as Delegates-at-Large.

Sec. 2A. Each of the medical schools in the State of Missouri shall be entitled to send each year two student delegates, each from a different class, elected by the student body of the said medical school. The names of such student delegates shall be certified by the Dean of said medical school to the Secretary of this Association thirty days before the Annual Session. Such student delegates shall have all the rights and privileges of all other delegates.

Sec. 3. Forty delegates shall constitute a quorum of the House of Delegates. All meetings of the House of Delegates shall be open to members of the Association.

Sec. 4. From among members of the House of Delegates the Speaker shall appoint reference committees to which reports and resolutions, on a majority vote of the House of Delegates, shall be referred as follows:

Reference Committee on Amendments to the Constitution and Bylaws.

Reference Committee on Resolutions.

Reference Committee on Miscellaneous Affairs.

Reference Committee on Medical Education and Public Welfare.

Reference Committee on Reports of Officers.

The Speaker may appoint such other reference committees as he may deem necessary, upon approval of the House of Delegates.

The President shall appoint a Committee on Credentials.

Sec. 5. The House of Delegates shall elect delegates and alternates to the House of Delegates of the American Medical Association in accordance with the constitution and Bylaws of that body.

Sec. 6. The House of Delegates shall divide the state into Councilor Districts specifying what counties each district shall include and, when the best interest of the Association and the profession will be promoted thereby, organize in each a district medical society of which all members of the component county societies shall be members.

Sec. 7. The House of Delegates shall have authority to appoint committees for special purposes from among members of the Association who are not members of the House of Delegates. Such committees shall report to the House of Delegates and may be present and participate in the debate on their reports.

Sec. 8. The House of Delegates shall receive and act upon a complete and detailed annual audit of receipts and expenses of the preceding year and a proposed budget for the current calendar year which shall have been prepared by the Council and submitted to the component county societies at least four weeks prior to the Annual Session. These shall be published in the Journal.

Sec. 9. The following shall be the general order of business of the House of Delegates for the first meeting of the session:

1. Call to order by the Speaker.
2. Report of the Committee on Credentials.
3. Roll call.
4. Reading and adoption of minutes.
5. Report of officers.
6. Report of committees.
7. Unfinished business.
8. New business.

The following shall be the general order of business of the House of Delegates for the last meeting of the session:

1. Call to order by the Speaker.
2. Report of the Committee on Credentials.
3. Roll call.
4. Reading and adoption of minutes.
5. Report of the Nominating Committee.
6. Election of officers.
7. Reports of officers.
8. Reports of committees.
9. Unfinished business.
10. New business (see Sec. 1, Chap. III).
11. Installation of officers.
12. President's appointments and installation of members to committees.
13. Selection of the place for the next Annual Session.

At any meeting of the House of Delegates, the order of business may be changed by a two-thirds affirmative vote of the members present and voting.

CHAPTER IV. ELECTION OF OFFICERS

Section 1. The President on the first day of the Annual Session shall select a Committee on Nominations

consisting of ten delegates, no two of whom shall be from the same Councilor District. The Committee on Nominations shall report the result of its deliberations to the House of Delegates in the form of a ticket containing the name of one member for each of the offices listed in Article VII of the Constitution which are to be filled at that Annual Session excepting the President-Elect who shall be nominated from the floor of the House of Delegates.

Sec. 2. All elections of officers shall be by acclamation unless ballot is called for. A majority of the votes cast shall be necessary to elect except for delegates and alternates to the American Medical Association, who shall be elected as follows:

In case no delegates or alternates for the American Medical Association receive on the first ballot a majority of the votes, the nominees shall be declared elected in the order of the highest number of votes received until the allotted number shall have been chosen. In case of a tie vote for delegate or alternate, the tie shall be determined by lot.

In case no nominee for general offices of the Association (see Article VII, Constitution) receives a majority of the votes on the first ballot, the nominee receiving the lowest number of votes shall be dropped and a new ballot taken. This procedure shall be continued until one of the nominees receives a majority of all the votes cast, when he shall be declared elected.

Sec. 3. Nothing in this chapter shall be construed to prevent additional nominations being made from the floor by members of the House of Delegates.

Sec. 4. Delegates present at the Annual Session from Councilor Districts whose Councilors' terms expire shall hold meetings on or before the morning of the last day of the Annual Session and elect a Councilor for their District for a term of two years. The name of the elected Councilor shall be given on a prescribed form to the Secretary for presentation to the House of Delegates. Each candidate for Councilor must reside or practice in the district for which he is elected.

Sec. 5. The Speaker and Vice-Speaker shall not serve more than three consecutive terms.

Sec. 6. The Speaker shall appoint a parliamentarian to serve as such during the session of the House of Delegates at each Annual Session and upon whom the Speaker may call before deciding points of order or procedure.

CHAPTER V. DUTIES OF OFFICERS

Section 1. The **President**, or his designated representative, shall preside at all scientific sessions of the Association. He shall preside at the House of Delegates in the absence of the Speaker or Vice-Speaker and un-

til their successors are elected. He shall appoint all committees not otherwise provided for. He shall deliver an annual address at such time as may be arranged and shall perform such other duties as custom or parliamentary usage requires. He shall be the real head of the profession of the state and assist the Councilors in building up the county societies and in making their work more practical and useful.

Sec. 2. The **President** and the **President-Elect** shall be members of the Council and shall attend all meetings of the Council. Should the office of **President-Elect** become vacant through death or otherwise the Council may fill the vacancy until the next Annual Session of the Association.

Sec. 3. The **Vice-Presidents** shall assist the **President** in the discharge of his duties. In the event of the death, resignation or removal of the **President** the Council shall select one of the **Vice-Presidents** to serve the unexpired term.

Sec. 4. The **Treasurer** shall give bond in the sum of \$20,000. He shall demand and receive all funds due the Association, together with bequests and donations. He shall pay money out of the treasury only on a written order of the **President**, countersigned by the **Secretary**; he shall subject his accounts to such examination as the House of Delegates may order, and he shall annually render an account of his actions and of the state of the funds in his hands.

Sec. 5. The **Secretary** shall attend the General Meetings of the Association and the meetings of the House of Delegates, and shall keep minutes of their respective proceedings in separate record books. He shall be **Secretary** of the Council and shall keep a record of its proceedings. He shall be custodian of all record books and papers belonging to the Association, except such as properly belong to the **Treasurer**, and shall keep account of and promptly turn over to the **Treasurer** all funds of the Association which come into his hands. He shall provide for the registration of the members and delegates at the Annual Session. He shall, with the co-operation of the secretaries of the component societies, keep a card index register of all the legal practitioners of the state by counties, noting on each his status in relation to his county society, and shall transmit a copy of this list to the American Medical Association, transmitting to its **Secretary** each month a report containing the names of new members and the names of those dropped from the membership roster during the preceding month. He shall conduct the official correspondence, notifying members of meetings, officers of their election and committees of their appointment and duties. He shall employ such assistants as may be ordered by the Council and shall make an annual report

to the House of Delegates. He shall supply all component societies with the necessary blanks for making their reports and shall collect from them the regular per capita dues and assessments and turn the same over to the Treasurer. The amount of his salary shall be fixed by the Council.

CHAPTER VI. COUNCIL

Section 1. The Council shall meet during the Annual Session at such times as necessity may require, subject to the call of the Chairman or on petition of three Councilors. It shall meet on the last day of the Annual Session to organize. The Council shall elect a Chairman and a Vice-Chairman for a term of one year. The Chairman may be reelected to serve not more than four consecutive terms of one year each. The Council shall, through its Chairman, make an annual report to the House of Delegates.

Sec. 2. Each Councilor shall be organizer, peace-maker and censor for his district. He shall visit each county in his district at least once a year for the purpose of organizing component societies where none exists, for inquiring into the condition of the profession, and to keep in touch with the activities of and to aid in the betterment of the component societies of his district. He shall make reports of his work and the condition of the profession of each county in his district to the Council. The necessary traveling expenses incurred by each Councilor in the line of duties herein imposed may be allowed on a proper itemized statement submitted monthly and within the current year, including his expense in attending the Annual Session of the Association. No Councilor shall be eligible for the position of Delegate to the House of Delegates during his term of office as Councilor, nor shall he vote in the House of Delegates.

Sec. 3. The Council shall be the executive body of the House of Delegates and between sessions shall exercise the power conferred on the House of Delegates by the Constitution and Bylaws.

Sec. 4. The District Councilor together with two members of component societies within the Council District, selected by the Councilor, shall serve as a Board to hear and by a majority vote adjudicate any questions involving the right and standing of members, either in relation to other members or to component societies or to the Association, and all matters of discipline affecting the conduct of members of component societies, or other matters.

The Council shall be the appellate Board of Censors of the Association. It shall hear and adjudicate all matters on appeal from the decision of the Councilor Board; it shall hear and adjudicate matters of an ethical

nature brought before the House of Delegates or the general meeting which shall be referred to the Council without discussion. On original decision or appellate determination, its decision shall be final unless appealed to the then convened meeting or the next meeting of the House of Delegates.

Sec. 5. Charters shall be issued to county societies only on approval of the Council, and shall be signed by the President and Secretary of this Association. Upon the recommendation of the Council, the House of Delegates may revoke the charter of any component society whose actions are in conflict with the letter or spirit of this Constitution and Bylaws.

Sec. 6. In sparsely settled sections the Council shall have authority to organize the physicians of two or more counties into societies, to be suitably designed so as to distinguish them from district societies, and these societies, when organized and chartered, shall be entitled to all rights and privileges provided for component societies until such counties shall be organized separately.

Sec. 7. The Council shall provide for and supervise the issuance of all publications of the Association including proceedings, transactions and memoirs, and shall have authority to appoint an Editor and such assistants as it deems necessary. It shall prescribe the methods of accounting and through a committee of three of its members, to be known as a Committee on Auditing and Appropriations, shall audit all accounts of this Association. The Council shall adopt an annual budget providing for the necessary expenses of the Association for the following calendar year. This budget shall be prepared and presented for consideration in the last quarter of each year by the Committee on Auditing and Appropriations. A complete and detailed report shall be submitted to the component county medical societies as provided in Section 8, Chapter III. The Council shall submit an annual report of the House of Delegates which shall specify the character and cost of the publications of the Association, the amount and character of all its property, and shall provide full information concerning the management of all affairs of the Association which the Council is charged to administer.

Sec. 8. The Council shall appoint at least six months before the Annual Session, a committee consisting of three of its members to be known as the Committee on Arrangements for the Annual Session. On recommendation of the Committee, the Council shall appoint a general chairman of a Local Committee on Arrangements, who shall be a member of the component society of the county in which the Annual Session is to be held, and who shall appoint and organize from the members

of this county society the personnel of the Local Committee on Arrangements. The Local Committee on Arrangements shall provide suitable meeting places and shall have general charge of all local arrangements subject to the approval of the Committee on Arrangements for the Annual Session. All receipts and disbursements related to the Annual Session shall be handled by the Committee on Arrangements on recommendations of the Committee on Budget and Appropriations.

Sec. 9. The Council shall by appointment fill any vacancy in office not otherwise provided for which may occur during the interval between Annual Sessions of the House of Delegates; the appointee shall serve until his successor has been elected and has qualified.

Sec. 10. The salaries of all employees of the Association shall be fixed by the Council.

Sec. 11. The Council shall provide such headquarters for the Association as may be required to conduct its business properly.

Sec. 12. The Council shall be empowered to elect an Executive Secretary and Assistant Executive Secretary and such other personnel as may be necessary, who need not be members of the Missouri State Medical Association, each of whom shall perform such duties as the Council may designate and receive such salary and serve for such periods and under such conditions as the Council may determine.

CHAPTER VII. COMMITTEES AND COMMISSIONS

Section 1. Standing Committees of the Missouri State Medical Association, the chairman of which shall be appointed by the Association President unless otherwise provided in these Bylaws, will be as follows:

- Executive Committee.
- Committee on Constitution and Bylaws.
- Committee on Publication.
- Committee on Legislative Affairs.
- Committee on Planning.
- Committee on Voluntary Health Agencies.

The Executive Committee shall consist of the Association President, President-Elect, Secretary, Treasurer, Council Chairman and Council Vice-Chairman. The President of the Association shall be Chairman of the Executive Committee. The Executive Committee shall plan and execute such work as may be necessary for the welfare of the Association and the conduct of the Executive Secretary's Office between meetings of the Council, but shall be responsible at all times to the Council.

The Committee on Constitution and Bylaws shall consist of five members named by the President and shall propose such amendments to the Constitution and

Bylaws as are deemed wise and expedient, and bring before the House of Delegates such amendments as it or other members of the Association may present for consideration. The President shall appoint one member for one year, two members for two years and two members for three years. As the term of each expires, his successor shall be appointed for a term of three years.

The Committee on Publication shall consist of five members and be appointed annually by the Council and shall be responsible for general publication and distribution policies of the Journal. The Editor of the Journal shall be designated by the Council and also shall serve as Chairman of the Committee on Publication. The Editor shall be empowered to nominate an Editorial Board, subject to approval by the Council. The members of the Editorial Board will assist the Editor in soliciting, preparing and reviewing material for publication in the Journal.

The Committee on Legislative Affairs shall consist of five members of the Association, appointed annually by the President. The Committee shall consider legislative proposals affecting health problems of the people of the state and the practice of medicine and shall make recommendations to the Council and the House of Delegates as well as directing staff activities in such matters.

The Planning Committee shall consist of ten members to be appointed by the President. Two members shall be appointed for one year, two for two years, two for three years, two for four years and two for five years. As the term of each expires, his successor shall be appointed for a term of five years. In making such appointments, the President shall be governed by experience of the member, the size of his medical society and his geographical area, so as to have a representative committee. Age of the members shall be considered to the end that one third to one half of the committee shall be of an age group that should contemplate ten to twenty years more of active practice.

The Committee on Voluntary Health Agencies shall consist of five members of the Association appointed by the President. Two members shall be appointed for three years, two members for two years and one member for one year. As the term of each expires, his successor shall be appointed for a term of three years. The Committee on Voluntary Health Agencies shall provide liaison and work with all voluntary health organizations.

Sec. 2. Standing Commissions of the Missouri State Medical Association, who shall be responsible to the Council and whose chairman shall be appointed by the Association President, will be as follows:

- Commission on Public Affairs.

Commission on Medical Economics, Third Party and Governmental Relations.

Commission on Continuing Education and Health Manpower.

Commission on Medical-Legal Affairs.

Commission on Interspecialty Medicine.

Subsection a. The standing Commissions, unless otherwise provided in these Bylaws, shall consist of fifteen members serving three-year terms and the terms will be staggered so that the President will appoint five members of each Commission each year. Initially, the President will appoint five members to one-year terms, five members to two-year terms and five members to three-year terms and no member shall serve more than two consecutive terms.

Subsec. b. The Chairman of each Commission may appoint Ad Hoc Committees to carry out the Commission's programs. These Ad Hoc Committees may include any Missouri State Medical Association member.

Subsec. c. The Chairman of the Council shall appoint each year an appropriate Councilor to serve as advisor to each respective Commission.

The Commission on **Public Affairs** shall plan and execute programs designed to enhance the relationship between the public and the medical profession. The Commission shall have responsibility in the fields of industrial health, environmental health, medicine and religion, trauma, disaster medical care and national defense and other public matters.

The Commission on **Medical Economics, Third Party Medicine and Governmental Relations** shall keep close liaison and work with peer and utilization review mechanisms, insurance intermediaries and governmental agencies.

The Commission on **Continuing Education and Health Manpower** shall determine the character and scope of the scientific proceedings of the Association for each annual session as well as to make all arrangements for such annual sessions, subject to the instructions of the House of Delegates. The Commission shall also be responsible for the entire continuing education program of the Association, shall have all matters pertaining to hospitals referred to it, shall carry on all programs in the recruitment of health manpower in professional as well as in allied health fields and shall be responsible for programs in the rural health field.

The Commission on **Medical-Legal Affairs** shall investigate and study medical-legal matters affecting the practice of medicine, make recommendations to the Council and House of Delegates and also make certain that all Association members are kept informed of important developments in this field. The Commission also may work with similar groups formed by the State

Bar Association on matters of joint interest and concern as well as with governmental and insurance agencies in this field.

The Commission on **Interspecialty Medicine** shall be composed of one representative of each statewide specialty group as recognized by the Association Council. The President of the Missouri State Medical Association shall appoint annually to the Commission a representative from each of the authorized groups as submitted to him by the specialty organization. In the event that such a nominee is not submitted to him by an organization, the Association President may designate a member of that specialty group to serve on the Commission.

The Commission shall be charged with the responsibility of reviewing organization problems with respect to scientific programs, socio-economic and legislative matters that affect their particular specialties; in addition the Commission shall have the responsibility for programs and activities in fields relating to disease and health services involving the citizens of our state and such other matters as the Council shall direct. Also, the Commission shall provide close liaison between the various specialty organizations and the Missouri State Medical Association.

Sec. 3. Fifty percent of a Committee or a Commission should be present at an official meeting to constitute a quorum.

Sec. 4. Special committees may be appointed by the President or the Council as circumstances may demand.

CHAPTER VIII. DUES AND ASSESSMENTS

Section 1. (a) The annual dues of this Association shall be \$90.00, which shall be applicable to each active member of the Association beginning in 1975 and shall be levied per capita on the active members of the component societies; the per capita levy for junior members shall be \$10.00 per year; honor and associate members shall not be required to pay dues. Dues shall be payable on January 1 of the year for which they are levied.

(b) An assessment of \$10.00 per year on each active member of the Association shall be applicable for a three-year period beginning in 1975. The assessment shall be payable with the dues of the Association, and the monies collected therefrom shall be remitted to the Missouri State Medical Foundation.

Sec. 2. Three dollars of the annual dues shall be credited to the account of the Journal for each member's annual subscription. The remainder of the amount shall be credited to the general fund of the Association.

Sec. 3. The House of Delegates may, when in its judgment the best interest of the Association demands,

recommend an assessment on each active and junior member. Such assessment shall be levied only by consent of two thirds of the members of the House of Delegates present and voting. Funds obtained from such special assessment shall be allocated only for the purposes for which such assessment is levied and in accordance with substantiating budgets. Unexpended balances from such assessments must be reported to the House of Delegates for re-allocation.

Sec. 4. The secretary of each component society shall cause to be collected and remitted to the Treasurer of this Association the per capita levies. Any member whose name has not been reported for enrollment and whose dues have not been remitted to the Treasurer of this Association on or before March 1 shall stand suspended until his name is properly reported and his dues for the current year are paid. On December 31 of each year, members delinquent in payment of dues, and assessment if such has been made, or any part thereof shall, ipso facto, forfeit their memberships. No suspended member shall be eligible to register at an annual session.

CHAPTER IX. RULES OF CONDUCT

The ethical principles governing the members of the American Medical Association shall govern members of this Association.

CHAPTER X. RULES OF ORDER

The deliberations of this Association shall be conducted in accordance with parliamentary usages as defined in *Sturgis Standard Code of Parliamentary Procedure*.

CHAPTER XI. COUNTY SOCIETIES

Section 1. All county societies now in affiliation with the State Association or those that may hereafter be organized in this state, which have adopted principles of organization not in conflict with this Constitution and Bylaws shall, upon application to the Council, receive charters from this Association provided that their Constitutions and Bylaws shall have been submitted to the Council and received its approval.

Sec. 2. Only one component medical society shall be chartered in each county.

Sec. 3. Each county society shall be judge of the qualifications of its members, subject to review and final decision by the Council of the State Association. Every reputable and legally qualified physician who does not practice, nor profess to practice sectarian medicine, and who resides or practices in the same county, who shall apply for membership on the prescribed form and subscribe for the Journal and pay the annual dues

and assessments for the current year, shall be eligible for election to membership.

A member of a component society whose license has been revoked shall be dropped from membership automatically as of the date of revocation. The Council of the State Association shall have final authority to expel a member should a component county society fail to do so after being so requested by the Council.

The Council may upon request of a component society remit the state dues and assessment of a member who has become totally and permanently incapacitated through mental or physical disability and has been a member in good standing during the three consecutive years immediately preceding his disability; provided, that the component society shall remit the county society dues of such member.

The Council may, upon request of a component society, remit the state dues and assessments of a deserving member, found to fall within what is classified as a hardship case, during the period of said hardship until such time as the dues again become payable; provided that the component society shall remit the county society dues of such member.

The Council may, upon the request of a component society, waive the dues of any member in good standing for such a period as the member is serving in the Armed Forces of the United States of America, or similar services with any of the allies of the United States, and for six months thereafter.

A physician living near a county line may hold his membership in that county most convenient for him to attend, on permission of the component society in whose jurisdiction he resides.

Sec. 4. Any physician who may feel aggrieved by the action of the society of his county in suspending or expelling him shall have the right to appeal to the Council whose decision shall be final. A county society shall at all times be permitted to appeal or refer questions involving membership to the Council of the State Association for final determination.

Sec. 5. In hearing appeals the Council may admit oral or written evidence or both as in its judgment will most fairly present the facts.

Sec. 6. When a member in good standing in a component county society moves to another county in this state, he shall be given a written certificate of these facts by the secretary of his society, without cost, for transmission to the secretary of the society in the county to which he moves. Pending his acceptance or rejection by the society in the county to which he moves such member shall be considered to be in good standing in the county society from which he was certified

and in the State Association to the end of the period for which his dues have been paid.

A member of a component society who moves to and engages in the practice of medicine at a location in another county in which there is a component society shall forfeit his membership in this Association and the Secretary shall remove his name from the roster of members of the Missouri State Medical Association unless within one year after such change of residence he becomes a member of the component society in the county to which he has moved.

Sec. 7. Each county society shall have general direction of the affairs of the profession in the county, and its influence shall be constantly exerted for bettering the scientific, moral and material condition of every physician in the county. Systematic efforts shall be made by each member, and by the society as a whole, to increase the membership until it includes every eligible physician in the county.

Sec. 8. At some meeting in advance of the Annual Session of this Association, each component county society shall elect one or more delegates and an equal number of alternates therefor to represent it in the House of Delegates of this Association, in accordance with Chapter III, Section 2 of these Bylaws. The secretary of each county society shall send a list of such delegates and alternates to the Secretary of this Association at least sixty days before the Annual Session. Representation in the House of Delegates shall be contingent on compliance with the foregoing provisions.

Sec. 9. The secretary of each county society shall keep a roster of its members and, if practicable, a list

of non-affiliated physicians, in which shall be shown the full name, address, college and date of graduation, date of license to practice in this state, and such other information as may be deemed necessary by the Council. He shall send a copy of the program of each meeting to his district councilor and to the Secretary of the State Association.

Sec. 10. Any county component society, in a manner approved by the State Association, or the State Association with the consent of the county society or societies affected, may undertake, organize and put into effect plans for the medical care of indigent persons or indigent groups, and low income groups, by agreements with physicians, public officials or others and by the use of contributions, cooperative funds or other means; provided, however, that a free choice of the available and participating physicians in that territory shall be allowed to the patient and that all relationships, legal or otherwise, between the physician and the patient shall be and remain as though it were strictly an individual employment.

CHAPTER XII. AMENDMENTS

Section 1. These Bylaws may be amended at any Annual Session by a two-thirds vote of the delegates present and voting at that session, if the proposed amendment has been properly submitted to the House of Delegates and has laid on the table for one day.

Sec. 2. Upon the adoption of this Constitution and these Bylaws all previous constitutions and bylaws are thereby repealed.



Marsh, Alice, Pleasant Hill 64080
Marshall, Cameron F., 8039 Holmes 64131
Marshall, Hal E., 4949 Rockhill Rd. 64110
Martin, Clyde V., 800 W. 47th St. 64112
Mason, Wayne E., 6700 Troost 64131
Masucci, Joseph M., Argyle Bldg. 64106
Mathews, Robert M., 7301 Mission Rd., Shawnee Mission, Kan. 66208
Mayer, John H., Jr., Plaza Parkway Bldg., 64112
Medlicott, William J., 4320 Wornall Rd. 64111
Meegan, Robert J., 2929 Baltimore 64108
Mehta, Satish K., 2307 E. 109th 64131
Meiklejohn, Duncan C., 2116 S. Sterling, Independence 64052
Melgaard, S. Ross, 6601 Rockhill Rd. 64131
Merveille, Octave C., 24th & Gillham Rd. 64108
Metz, Kurt, 601 E. 63rd 64110
Meyer, Paul W., 4320 Wornall Rd. 64111
Meyers, Harold L., 601 E. 63rd St. 64110
Miciano, Ruel T., 215 S. Sibley, Buckner 64016
Miles, George O., 4320 Wornall Rd. 64111
Milgram, Byron A., 601 E. 63rd 64110
Miller, Clint L., 615 W. 3rd St., Lee's Summit 64063
Miller, Gerald L., 2929 Baltimore 64108
Miller, Lawrence H., 2411 Holmes 64108
Miller, Max I., 4001 W. 66th, Prairie Village, Kan. 66208
Miller, Wilson H., 4620 Nichols Parkway 64112
Minnigerode, Lana K., 2316 E. Meyer Blvd. 64132
Minnigerode, Turner L., 10950 Glenn Arbor Rd. 64114
Mitchell, Andrew D., 4320 Wornall Rd. 64111
Mitchell, John D., 2928 Main 64108
Mitchell, Robert H., Bryant Bldg. 64106
Mittra, Nirmal K., 112th Terr. & Grandview Rd. 64134
Mixon, William C., 4320 Wornall Rd. 64111
Montello, Samuel A., 4320 Wornall Rd. 64111
Mooney, Justin L., 6740 W. 52nd Pl., Shawnee Mission, Kan. 66202
Mooney, Marcel L., 751 E. 63rd St. 64110
Moore, Jack D., 4320 Wornall Rd. 64111
Moore, Robert A., Box 679 64141
Moreano, Armando H., 21 West 43rd 64111
Morgan, David B., 4620 Nichols Parkway 64112
Morgan, William R., 6700 Troost 64131
Morley, Louise A., 4907 Neosho, Shawnee Mission, Kan. 66205
Moroney, Jean M., 4320 Wornall Rd. 64111
Morris, Joseph H., Jr., 4240 Blue Ridge Blvd. 64133
Morrison, Donald H., 7500 W. 95th, Shawnee Mission, Kan. 66201
Morrison, J. Scott, 424 Nicholas Rd. 64112
Mosbacher, Hugh E., 919 Lake Dr. Court, Independence 64055
Moss, Paul, 4706 Broadway 64112
Mueller, Martin J., 6400 Prospect 64132
Mullen, Leo M., 4443 Paseo Blvd. 64110
Mundy, William L., 4635 Wyandotte St. 64112
Murphy, James J., 8306 Jarboe 64114
Murphy, Robert J., 4320 Wornall Rd. 64111
Murray, W. Lee, 11201 Colorado 64137
Muth, Robert G., 6400 Prospect 64132
Myers, Andrew I., 9913 Charlotte 64131
Myers, Carl M., 6601 Rockhill Rd. 64131
Myers, George H., 6700 Troost 64131
Myers, John S., 618 Professional Bldg. 64106
Myers, Robert M., 906 Grand Ave. 64106
Naime, Mansour J., 6700 Troost 64131
Naini, Mansoor G., 5817 Buttonwood Tree La. 64119
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Nielsen, Michael H., 1515 W. Truman Rd., Independence 64050
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Novak, Edward J., 3011 Baltimore 64109
O'Farrell, Thomas P., 6400 Prospect 64132

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O'Malley, James F., 6700 Troost 64131
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Osborne, Jere O., 644 W. 69th Terr. 64113
Ost, Mark D., 6550 C Troost 64131
Oversch, Harry B., 6400 Prospect 64132
Owens, James L., 920 W. 47th 64112
Owens, Richard L., 207 W. 116th 64114
Owens, Robert H., 6700 Troost 64131
Ozar, Milton B., 6700 Troost 64131
Pack, Gary L., 751 E. 63rd 64110
Pakula, Sidney F., 10839 State Line 64114
Pareman, Allen G., 601 E. 63rd St. 64110
Parker, Hubert M., Suite 435, 2929 Baltimore Ave. 64108
Parsons, Eugene O., 145th & State Line, Kenneth Rd., Stanley, Kan. 66224
Pawlat, John E., 4320 Wornall Rd. 64111
Pearson, Paul E., 102 E. 51st 64112
Pecoraro, Anthony P., 4320 Wornall Rd. 64111
Peete, Don C., 3717 Bellevue 64111
Pelegrin, Robert J., 17221 E. 23rd, Independence 64057
Pemberton, L. Beaty, 2411 Holmes 64108
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Perll, Maurice F., 6700 Troost 64131
Perll, Rita D., 600 E. 22nd 64108
Perry, Ralph, 7140 Sni-A-Bar Rd. 64129
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Peterson, Bonita J., 4525 Holly 64111
Peterson, Carl M., 2701 E. 31st St. 64128
Peterson, George L., 4706 Broadway 64112
Peterson, Walter R., 2701 E. 31st St. 64128
Petit, Carl A., 4620 J. C. Nichols Parkway 64112
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Pickard, Nicholas S., 6210 High Dr., Shawnee Mission, Kan. 66208
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Pinsker, Oscar T., 6724 Troost 64131
Piper, Donald K., 6700 Troost 64131
Pipkin, Garrett F., Rt. 2, Clinton 64735
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Politi, Gregory, 31st & Wyandotte 64108
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Poonawala, Huseni E., 6301 Rockhill Rd. 64131
Pope, Charles H., Jr., 8800 E. 63rd 64133
Porter, Louis, 751 E. 63rd St. 64110
Porter, Michael J., 751 E. 63rd 64110
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Powell, Robert C., 5212 Rockhill Rd. 64110
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Printz, Otto J., 601 E. 63rd St. 64110
Prostic, Edward J., 601 E. 63rd 64110
Pryor, Harold J., Meyer & Prospect 64132
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Racela, Antonio S., Jr., Linwood at Prospect 64128
Rader, Ada B., 13414 Locust St. 64145
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Ramey, Ehret O., 4320 Wornall Rd. 64111
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Robinson, E. Kip, 1015 W. 58th Terr. 64113
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*Romito, Anthony J., 5529 Troost 64110
Rose, Charles W., 334 S. Van Brunt 64124
Rosenburg, Isaac, 310 W. 47th 64112
Roth, Alfred, 6700 Troost 64131
Rozen, Jay L., 6400 Prospect 64132
Rubin, Harvey P., 701 E. 63rd 64110
Rubnitz, Leon H., 751 E. 63rd St. 64110
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Russell, James L., Suite 420, 2929 Baltimore Ave. 64108
Russell, Robert K., 63rd & Evanston, Raytown 64133
Sabates, Felix N., 6700 Troost 64131
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Sanders, Harmon U., Jr., 115 Humphrey, Greenwood, Miss. 38930
Sanders, William F., 411 Nichols Rd. 64112
Sandow, Theodore L., Jr., 4320 Wornall Rd. 64111
Santoro, Carlos G., 1103 Westport Rd. 64111
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Sauer, Gordon C., 6400 Prospect Ave. 64132
Scales, Margaret B., 6550 C Troost 64131
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Schuman, Norvin D., Meyer Blvd. at Prospect 64132
Schutz, Carl B., 841 San Pablo Dr., San Marcos, Calif. 92069
Schutz, Richard B., 603 A Lilac Place, Lee's Summit 64063
Scott, John E., 10901 Winner Rd., Independence 64052
Seely, Clark W., 3000 W. 68th, Shawnee Mission, Kan. 66208
Seiden, Gerald D., 6724 Troost 64131
Seitz, Elson F., 1509 W. Truman Rd. Independence 64050
Sells, Kenneth J., Suite 310, 2929 Baltimore Ave. 64108
Shalet, Malcolm F., 6724 Troost 64131
Shalley, Jack E., 4240 Blue Ridge Blvd. 64133
*Shank, Neil A., 701 E. 63rd 64110
Shapiro, Lazare M., 701 E. 63rd St. 64110
Sharma, Janardana N., 4320 Wornall Rd. 64111
Sheahon, John A., 6700 Raytown Rd. 64133
Shechter, Nathan, 601 E. 63rd 64110
Shelden, Russell D., 6400 Prospect 64132
Shen, Yen, Little Blue & Lee's Summit 64139
Shiffrin, Alexander, 6700 Troost 64131
Shockley, Clarence J., 418 Winnebago Dr., Greenwood 64034

- Shuey, Herbert H., 3 E. Gregory 64114
Siegel, Carl, VA Hospital, 4801 Linwood 64128
Simmons, Donald D., 4301 Main 64111
Simmons, John L., 6400 Prospect 64132
Simon, Sanford, 751 E. 63rd St. 64110
Sinclair, Richard H., 4320 Wornall Rd., Suite 308 64111
Singleton, Chas. M., II, 4320 Wornall Rd. 64111
Singleton, John M., III, 411 Nichols Rd. 64112
Sirridge, Marjorie S., 2411 Holmes 64108
Sirridge, Wm. T., 24th & Cherry 64108
Skillman, Robert K., 4320 Wornall Rd. 64111
Skinner, John T., Bryant Bldg. 64106
Slankard, Edward, 4320 Wornall Rd. 64111
Slentz, Edwin L., 4320 Wornall Rd. 64111
Slentz, William A., 4320 Wornall Rd. 64111
Slickman, R. A., 2929 Baltimore 64108
Smith, Arthur B., 6400 Prospect Ave. 64132
Smith, Elbert E., III, 4320 Wornall Rd. 64111
Smith, Gregory L., 4949 Rockhill Rd. 64110
Smith, H. Eugene, 411 Nichols Rd. 64112
Smith, Ira T., 6400 Prospect 64132
Smith, James M., 21 W. 43rd 64111
Smith, John C., 24th & Cherry 64108
Smith, Katherine W., 24th & Gillham Rd. 64108
Smith, O. D., 6550 C Troost 64131
Smith, Wallace B., 3611 S. Delaware, Independence 64055
Smull, Ned W., 24th & Gillham Rd. 64108
Sneid, Philip, 701 E. 63rd St. 64110
Snider, Wilbur R., 24th & Cherry 64108
Soper, Michael R., 605 W. 47th 64112
Soper, Steven J., 1505 W. Truman Rd., Independence 64050
Spafford, Allen L., 315 Nichols Rd. 64112
Spalding, Wilber B., Jr., 2928 Main 64108
Spencer, Donald M., 4240 Blue Ridge Blvd. 64133
Spies, Barbara J., 11201 Colorado 64137
Spurney, Joe E., 11201 Colorado 64137
Spurny, Otto M., 6724 Troost 64131
Staeb, Gerald E., 6700 Troost 64131
Stacey, Wallace R., 2116 S. Sterling Ave., Independence 64052
Staggs, William A., Suite 335, 2929 Baltimore Ave. 64108
Staley, Harry R., 4740 Roanoke Parkway 64112
Stanley, John H., 6301 Rockhill Rd. 64131
Statland, Harry, 601 E. 63rd St. 64110
Statland, Morris, 601 E. 63rd St. 64110
Steffen, Lawrence F., 411 Nichols Rd. 64112
Stelle, Charles W., 4304 W. 82nd Terr., Prairie Village, Kan. 66208
Stelmach, Walter L., Baptist Memorial Hospital, 6601 Rockhill Rd. 64131
Stephens, Jack D., 751 E. 63rd 64110
Stern, Thomas L., 1740 W. 92nd 64114
Stewart, Harry A., 4706 Broadway 64112
Stockton, Raymond W., 4320 Wornall Rd. 64111
Stockwell, A. Lloyd, 24th & Cherry 64108
Stratemeier, Edward H., 31st & Wyandotte 64108
Strauss, Carl F., 8300 Troost 64131
Stribling, Thomas L., 2116 S. Sterling Ave., Independence 64052
Stromberg, Eric D., 6400 Prospect 64132
Stuber, Jack L., 24th & Cherry 64108
Suddarth, Sterling B., 4240 Blue Ridge Blvd. 64133
Susella, Dasari, 2310 E. Linwood Blvd. 64109
Sutton, Richard L., Jr., 4121 W. 83rd Shawnee Mission, Kan. 66208
Swisher, Robert C., 2209 Ptarmigan Dr. #4, Walnut Creek, Calif. 94595
Sword, Richard O., 800 W. 47th St. 64110
Szabados, Ernest D., 17221 E. 23rd, Independence 64057
Tamblyn, Claire L., 6400 Prospect 64132
Tantleff, A. Robert, 6400 Prospect 64132
Tapuz, Jaime T., 700 E. 8th 64106
Tarson, Solomon S., 5511 W. 85th St., Overland Park, Kan. 66207
Tasker, Charles B., 11083 Burntwood Dr., Sun City, Ariz. 85351
Tesson, James A., 9911 Lee Blvd., Shawnee Mission, Kan. 66206
Thalblum, Harvey, 6400 Prospect 64132
Theel, Otto W., Jr., 4301 Main 64111
Thiele, George H., 1219 West 48th 64112
Thomas, Christopher Y., 4320 Wornall Rd. 64111
*Thomas-Richards, Jose R., 24th & Cherry 64108
* Doctor of Osteopathy.
- Thompson, Charles L., 4320 Wornall Rd. 64111
Throne, Bennie J., 6400 Prospect 64132
Throne, Elias M., Meyer Blvd. & Prospect 64132
Tice, Wayne K., 3504 S. Delaware, Independence 64055
Tillema, David A., 6306 Morningside 64113
Tiojanco, Milagros E., 6601 Rockhill Rd. 64131
Tiojanco, Reynaldo R., 5801 E. 113th St. 64134
Titterington, Frank W., 4320 Wornall Rd. 64111
Tokrisna, Aphiraks, 10901 Winner Rd., Independence 64052
Totten, Frederick E., 9331 Hayes Dr., Overland Park, Kan. 66212
Toubes, Daniel B., 8300 Troost 64131
Trimble, George X., 101 Memorial Dr. 64108
Troeh, Melvin R., 1515 W. Truman Rd., Independence 64050
Trowbridge, Bernard C., 415 E. 63rd St. 64110
Trowbridge, Ellsworth H., Jr., 411 Nichols Rd. 64112
Tuohy, Gerald F., 209 W. 125th St. Terr. 64145
Turano, William L., 6700 Raytown 64133
Turner, Ronald M., Suite 402, 1515 W. Truman Rd., Independence 64050
Tutera, Dominic F., Plaza Medical Bldg. 64112
Tuthill, Herbert, 202 S. Cook, Barrington, Ill. 60010
Twin, Edward J., 24th & Cherry 64108
Twyman, Richard A., 1020 W. 56th 64113
Underwood, Dick H., 6700 Troost 64131
Upsher, Albert E., Box 2778 64106
Valins, Eugene, 1815 E. 63rd 64130
Van Biber, James T., 1612 W. Truman Rd., Independence 64050
Van Buskirk, Terrance E., 5246 St. John 64123
Van Buskirk, William C., 6700 Troost 64131
Van Thullenar, Philip A., 4949 Rockhill Rd. 64110
Vaughan, James W., 411 Nichols Rd. 64112
Venegoni, Robert L., 6700 Troost 64131
Vera, Enrique, 6724 Troost, Suite 205 64131
Vergara, Gerardo G., 5200 W. 84th Terr., Shawnee Mission, Kan. 66207
Victor, Frank R., 701 E. 63rd 64110
Vidals, Victor G., 7540 Troost 64131
Villanueva, Angela A., P. O. Box 2778 64142
Vincent, Jack C., 8300 Troost 64131
Virden, Herbert H., 6700 Troost 64131
Viril, Leonard C., 4706 Broadway 64112
Vogel, Arthur P., 2215 Drury La., Shawnee Mission, Kan. 66208
Volk, George E., 4320 Wornall 64111
Voth, Harold W., 4320 Wornall Rd. 64111
Wade, Frederick E., Professional Bldg. 64106
Wagner, Paul J., Trinity Hospital 64108
Wakefield, Franklin H., 13065-100th Dr., Sun City, Ariz. 85351
Waldman, Richard A., 24th & Gillham 64108
Walker, James C., 2727 Main 64108
Walker, John W., Dept. of Radiology, Door County Hosp., Sturgeon Bav. Wis. 54235
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Wall, Harry C., 751 E. 63rd St. 64110
Wall, Leonard A., 4320 Wornall Rd. 64111
Wally, John W., 4320 Wornall Rd. 64111
*Wang, George Y. M., R.F.D. 2, Box 248D, Belton 64012
*Wasserman, Gary S., 24th & Gillham Rd. 64108
Wathanacharoen, Suchint, 4320 Wornall Rd. 64111
Watson, Ethel, 1539 Evanston, Independence 64052
Waxman, Herbert J., 8300 Troost 64131
Waxman, Jane Z., 4840 Prospect 64130
Webb, Harry E., 330 W. 47th St. 64112
Weiford, Edward C., 4320 Wornall Rd. 64111
Weir, Robert K., 4240 Blue Ridge Blvd. 64133
Wells, Donald E., Meyer Blvd. at Prospect 64132
Wells, James A., 3717 Bell 64111
Wells, John H., 3325 Prospect 64128
Wenner, Herbert A., 24th & Gillham 64108
West, Harold, 1734 E. 63rd 64110
Wheeler, Charles B., 830 W. 53rd 64111
- Wheeler, John H., 4320 Wornall Rd. 64111
Whitaker, James H., 6400 Prospect 64132
White, Charles H., 6700 Troost 64131
White, James S., 751 E. 63rd 64110
White, Stoughton F., 4320 Wornall Rd. 64111
White, William E., 6400 Prospect 64132
Whiteman, John R., Suite 545, 2929 Baltimore Ave. 64108
Whitman, Doyle C., 6836 Cherokee La., Shawnee Mission, Kan. 66208
Whitmore, J. Stewart, Suite 340, 2929 Baltimore Ave. 64108
Whittaker, Charles K., 4440 Broadway 64111
Wicks, Edwin O., 506 N.W. 43rd 64116
Wien, Irving A., 1103 Grand 64106
Wilber, Robert D., 4320 Wornall Rd. 64111
Wilhelm, Warren F., 6400 Prospect 64132
Wilkins, Michael S., 825 Euclid 64124
Wilkinson, Charles B., 4604 Benton Blvd. 64130
Wilkinson, Everett A., 6400 Prospect 64132
Williams, Fenton A., 1734 E. 63rd St. 64110
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Williams, George P., 10928 Hillcrest 64134
Williams, Joseph C., Jr., 6400 Prospect 64132
Williams, Roland D., 305 W. 43rd St. 64111
Williams, Starks J., 5600 Agnes 64130
Williams, Thomas, 9601 Manor Rd., Leawood, Kan. 66206
Willoughby, James W., 1125 Grand 64106
Willoughby, Jean B., 6400 Prospect 64132
Wilson, Clifford C., 102 E. 51st 64112
Winer, Herbert J., 6724 Troost 64131
Winer, Nathaniel, 24th & Cherry 64108
Winkelman, Esther B., 6400 Prospect 64132
Winston, Bernard H., 601 E. 63rd St. 64110
Wise, George W., 24th & Gillham Rd. 64108
Wise, Morris F., Suite 274, 751 E. 63rd 64110
Withers, Orval R., Plaza Parkway Bldg. 64112
Woehl, Joseph J., 620 Medical Plaza 64111
Wolf, Jack W., 6724 Troost 64131
Woodman, Grey M., 226 Tucker Bldg., Clinton, Ia. 52732
Woods, Harold V., 1405 W. 40 Hwy., Blue Springs 64015
Woods, S. Dwight, 4320 Wornall Rd. 64111
Woods, Walton C., TWA Overhaul Base, P. O. Box 20126 64195
Woodward, William W., 4240 Blue Ridge Blvd. 64133
Wortmann, Robert F., 6400 Prospect 64132
Wright, R. Paul, 6700 Troost 64131
Wu, Shih-Min, 6724 Troost 64131
Wu, William Q., 6700 Troost 64131
Wurster, Jerry B., 4320 Wornall Rd. 64111
Wurster, W. Joel, 305 W. 43rd St. 64111
Youll, Donald V., 6700 Troost 64131
Youmans, Ronald A., 415 E. 63rd St. 64110
Young, James E., 716 Medical Plaza 64111
Young, Jesse W., 1401 Southwest Blvd., Kansas City, Kan. 66103
Youngblood, James P., 4620 Nichols Parkway 64112
Zacharias, David L., St. Joseph Hosp., Linwood Blvd. at Prospect 64128
Zack, Ashley S., 24th & Gillham 64108
Zahony, Ivan, 8720 Rosewood, Prairie Village, Kan. 66207
Zahorsky, Carroll L., 230 Penn Park Medical Center 64108
Zellermayer, Jacob, 5801 Lockton La., Shawnee Mission, Kan. 66205
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Zoller, David D., 101 Memorial Dr. 64108
Zwerenz, Bruno H., 1734 E. 63rd St. 64110

JASPER COUNTY MEDICAL SOCIETY (Joplin)

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Allen, David O., 3105 McClelland 64803
Bentlage, Charles H., Hillside Medical Plaza, 32nd & McClelland 64801
Bhend, David P., Medical Arts Bldg. 64801
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Birsner, Frank H., 2410 Jackson St., 64801
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Butler, Patrick L., Box 280, Diamond 64840

Carnes, Victor M., P. O. Box B, Main Office 64801
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Clark, Frank I., III, 3107 McClelland Blvd. 64801
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DeTar, Burleigh E., 410 Jackson 64801
Eliscu, Juliette M., 3107 McClelland 64801
Esther, John R., Ferguson's Med. Laboratories 64801
Ferguson, Lewis H., Jr., 315 Sweetbriar Dr., Alexandria, La. 71301
Ferguson, Ralph L., P. O. Box B, 64801
Ferguson, Robert M., 2509 Jackson 64801
Fritsch, Andrew J., 2920 Pearl 64801
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Gaston, Samuel Lee, 101 Medical Arts Bldg. 64801
Grim, Edward M., 3105 McClelland Blvd. 64801
Grubb, Paul H., 2509 Jackson 64803
Hall, Marvin F., Medical Arts Bldg. 64801
Hallaba, M. A. S., 25th & Jackson 64801
Hilton, Paul E., 1612 Murphy Blvd. 64801
Holtzman, Samuel, 3001 M. L. King Dr., Apt. 201, Chicago, Ill. 60616
Hurst, Wilfred W., Medical Arts Bldg. 64801
Hwang, Yung H., 1515 Hazel Ave., Carthage 64836
Isbell, Charles H., Carthage 64836
Jeans, Virgil, 660 Jaccard Pl. 64801
Kirkman, Robert E., 2529 Jackson 64803
Koebler, John W., 3103 McClelland Blvd. 64801
Kuhn, John R., Jr., Frisco Bldg. 64801
Lewis, James A., 3115 McClelland Blvd. 64801
Longenecker, Joe L., 2503 Jackson 64803
McConigle, James P., 718 Illinois 64801
McConigle, Michael M., 2700 McClelland Blvd. 64801
McKee, Howard B., P. O. Box 564, Poplar Bluff 63901
McPike, Lloyd H., 2401 Jackson 64801
MacLaughlin, James C., 3103 McClelland 64801
Majzoub, Hish S., 2700 McClelland Blvd. 64801
Manalo, Gil Baleva, Jr., 1320 S. Main, Carthage 64836
Martin, Clarence A., 2419 E. 10th 64801
Mueller, Adolph R., Jr., 2700 McClelland 64801
Paddock, Charles S., 3905 Rangeline 64801
Patterson, Donald R., 2509 Jackson 64803
Patterson, Grover S., 510 S. Main, Carthage 64836
Pence, F. Wendell, 612 S. Main, Carthage 64836
Poor, Carl W., Rt. 1, Box 302, Neosho 64850
Post, Winfred L., 2630 E. 15th 64801
Pottenger, Lowell K., 107 Medical Arts Bldg. 64801
Powell, Robert G., 2329 Jackson 64803
Pryor, Ira J., 2700 McClelland 64801
Roberts, Howard H., 3209 McClelland 64801
Royce, James J., Sarcoxie 64862
Saneman, Paul P., 3209 McClelland Ave. 64801
Schmidt, Herbert J., 3912 Shoccoore, Durham, N. C. 27705
Schoeberl, Cletus B., Medical Arts Bldg. 64801
Schultz, Gregory A., 2125 Jackson 64803
Scorse, Sidney W., Rt. 1, Box 236, Neosho 64850
Shanahan, Mary P., P. O. Box 2125 64801
Singleton, Marvin A., 114 W. 32nd 64801
Smith, Roland T., Medical Arts Bldg. 64801
Smith, W. Russell, 211 E. Chestnut, Carthage 64836
Straub, David L., 3107 McClelland 64801
Vinyard, Jack L., 2727 McClelland Blvd. 64801
Walker, Paul W., 1022 N. Sergeant 64801
Whitten, M. Foster, 616 W. Centennial, Carthage 64836
Wieman, Harry K., Medical Arts Bldg. 64801
Wilcox, Ruth E., 614a Joplin St. 64801
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* Doctor of Osteopathy.

Wilson, Alice H., Rt. 1, Box 163, Neosho 64850
Wood, George H., 1515 Hazel, Carthage 64836
Young, Calvin C., Jr., Medical Arts Bldg. 64801

JEFFERSON COUNTY MEDICAL SOCIETY

Albano, Benjamin I., 114 Mississippi Ave., Crystal City 63019
Allbee, Roger H., Crystal City 63019
Bai, Sangzin, 233 Main St., Festus 63028
Blank, Michael K., Box 58, Star Route West, De Soto 63020
Bonifacio, Andres, 121 Mississippi Ave., Crystal City 63019
Carron, Joseph F., P. O. Box 217, Arnold 63010
Carson, R. R., 111 Easton Ave., De Soto 63020
Conant, James T., 111 Easton Ave., De Soto 63020
Deles, Vicente D., Crystal City 63019
Donnell, Harold E., De Soto 63020
Donnell, Robert H., Crystal City 63019
Donnell, Thomas A., Rt. 1, Box 55-10, Hillsboro 63050
Edwards, Waldo B., 135 W. Adams Ave., Kirkwood 63122
Judge, Walter T., Crystal City 63019
Kang, Chang H., 105 Easton Ave., De Soto 63020
Mayfield, James L., Crystal City 63019
Navato, Jose, 938 Brookvale Terr., Manchester 63011
Park, Duk Jae, 105 Walnut, Festus 63028
Rutledge, John F., Festus 63028
*Schwent, John T., 125 Mississippi, Crystal City 63019
Sirintrapun, Seyvee, 1588 Westvale Dr., Festus 63028
Verzola, Eufemio, 11 Main, Herculaneum 63048
Yoskit, Harry, Festus 63028

JOHNSON COUNTY MEDICAL SOCIETY (Warrensburg 64093)

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Cooper, Robert S., II, 122 E. Market
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Gonzalez, M. Garza, Warrensburg
Grove, Gulph W., Knob Noster 65336
Hanna, Hugh A., Rt. 5, South Mitchell
Harkness, Harry, 331 Hanover Arms Ct., Winston-Salem, N. C. 27104
Hobbs, George H., Rt. 2, Grandview Dr.
Johnson, Charles S., Warrensburg
Jones, Keith D., Warrensburg
Lederer, Charles M., Warrensburg
Maxson, T. Reed, Warrensburg
Ragland, Jerry, Box 516, Warrensburg
Reynolds, M. Wayne, P. O. Box 86, Warrensburg
Sicat, A. V., RFD 4

KNOX COUNTY (North Central Counties Medical Society)

LACLEDE COUNTY (Mid-Missouri County Medical Society)

LAFAYETTE-RAY COUNTY MEDICAL SOCIETY

Baik, Kil Y., Waverly 64096
Baldwin, Theodore R., 1236 Jesse James Rd., Excelsior Springs 64024
Best, Robert, 4300 W. 11th Terr., Shawnee Mission, Kan. 66211
Boydston, Catherine, Odessa 64076
Boydston, W. Wayne, Odessa 64076
Brady, Hugh S., Concordia 64020
Cook, Thomas B., Richmond 64085
Cope, Joseph S., Lexington 64067
Crayton, Billy G., Waverly 64096
Crozier, Franklin A., Richmond 64085
Davault, George, Richmond 64085
DeMotte, Jeanne M., Hwy. 13, South, P. O. Box 68, Richmond 64085
George, Theodore, P. O. Box 512, Richmond 64085
Goldberg, Isadore E., Braymer 64624
Kelling, Jordan, Waverly 64096
Kuangparichat, Manoch, 305 N. 18th, Lexington 64067
LaHue, William C., 1901 Sleepy Hollow Dr., Lexington 64067
McFadden, Gene A., Waverly 64096

Meyer, Jerry L., 834 Main St., Concordia 64020
Pavlu, Robert R., Waverly 64096
Riley, Charles T., Richmond 64085
Vajaranant, Manit, Medical Clinic, Lexington 64067
Ward, Joe, Lexington 64067
Williams, John W., Oak Grove 64075

LAWRENCE COUNTY (Ozarks Medical Society)

LEWIS-CLARK-SCOTLAND COUNTIES MEDICAL SOCIETY

Davis, Landis Y., Canton 63435
Rees, John, 213 W. Commercial, Kahoka 63445

LINCOLN COUNTY (St. Charles-Lincoln County Medical Society)

LINN COUNTY (Grand River Medical Society)

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MCDONALD COUNTY (Ozarks Medical Society)

MACON COUNTY (Chariton-Macon-Monroe-Randolph County Medical Society)

MADISON COUNTY (Mineral Area County Medical Society)

MARIES COUNTY (Mid-Missouri County Medical Society)

MARION-RALLS-SHELBY COUNTY MEDICAL SOCIETY (Hannibal 63401)

Avila, Estrella Z., 110 Magnolia Ave.
Avila, Patricia, 110 Magnolia Ave.
Bach, Lysle M., 4209 W. Ely Rd.
Borromeo, Carlos J., 2326 Palmyra Rd.
Buben, Robert W., 2910 St. Mary's Ave.
Bukstein, Michael J., 711 Grand
Burns, Francis R., Tower Plaza, Clinic Rd.
Burton, Dale F., P. O. Box 311
Clisham, John F., B & L Bldg.
Comer, J. Russell, Rt. 2, New London 63459
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Florendo, Purificacion T., Tower Plaza, Clinic Rd.
Foreman, Phillip B., Box 311
Gottipatti, Bharathi B., 711 Grand
Greene, Harry L., 109 B Virginia Hall, Stanley C., Sycamore Spring, Rt. 2
Hamlin, Wyeth, Box 311
Hinds, R. David, 3 Paulina Dr.
Jayanandaiah, H. P., 4022 Edgewood
Kruse, Carl R., 706 S. Dickerson, Palmyra 63461
Kwon, Yongsoo, 2910 St. Mary's Ave.
Lanning, Robert J., 7 Cardiff La.
Lichty, Charles A., Shelbyville 63468
Mann, James K., 4074 Hillside Dr.
Murphy, Bernard L., 2000 Crescent Dr.
Plowman, Edward M., B & L Bldg.
Rapp, Earl L., Box 311
Roller, Merrill J., 2910 St. Mary's
Steele, James C., Jr., Box 311
Strangle, Leslie L., 711 Grand
Walterscheid, John H., 1209 Broadway
Well, Julius W., Palmyra 63461

MERCER COUNTY (Grand River Medical Society)

MID-MISSOURI COUNTY MEDICAL SOCIETY (Phelps-Crawford-Dent-Pulaski-Maries-Laclede Counties)

Andreassen, Dimil F., Rolla 65401
Baumann, Albert R., Steelville 65565
Bealer, Louis A., Lebanon 65536
Butts, James D., Rolla 65401
Carnell, B. M., Buffalo 65622
Carrington, Howard W., Lebanon 65536
Cone, William, 707 Pine, Rolla 65401
*Courter, Gary M., Harwood & Chestnut, Lebanon 65536
Drake, Avery A., 4357 N. 106 Ave., Phoenix, Ariz. 85039
Draper, Bernard, 700 W. 11th, Rolla 65401
Elders, Frank A., Jr., Cuba 65453
Feind, Earl E., Rolla 65401
Froelich, R. W., Lebanon 65536

Gapasin, Ernesto, Lebanon 65536
Garrison, T. W., P. O. Box 356, Camden-
ton 65020
Grannemann, Harry N., 1000 W. 10th St.,
Rolla 65401
Hammler, Christiana V., St. James 65559
Hayden, M. R., Camdenton Med. Center,
Camdenton 65020
Heilbrunn, Ilse, 1203 B Forum Dr., Rolla
65401
Hite, Dennis E., Lebanon 65536
Holley, Donald B., Camdenton 65020
Longo, D. V., 201 W. Commercial, Lebanon
65536
Miller, Clyde S., Waynesville 65583
Mitchell, Roy E., Salem 65560
Myers, James M., Rolla 65401
Pendell, Paul W., 1100 W. 10th, Suite 230,
Rolla 65401
Pojanasomboon, Pichat, 1203 Forum Dr.,
Rolla 65401
Riffel, Gordon W., Bourbon 65441
Russell, Barbara E., Rolla 65401
Smith, Ted P., S&S Acres, Rt. 2, Rolla
65401
Stricker, Emil A., St. James 65559
Theobald, Sterling, Box 368, Camdenton
65020
White, Eugene F., 700 W. 11th, Rolla 65401
Young, Robert B., Rolla 65401

MILLER COUNTY MEDICAL SOCIETY

Buehler, Carl T., Jr., Eldon 65026
Shelton, Edward O., Eldon 65026

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SOCIETY**

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Reynolds-Bolling Counties)

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Bentinganan, Victor D., 703 W. Main,
Fredericktown 63645
Boonyasai, Boonfu, W. Maple St. at Hwy.
21, Pilot Knob 63636
Burcham, Tom R., Jr., Rt. 1, Box 168,
Farmington 63640
Cancelada, Juan, Farmington 63640
Carleton, Charles E., Jr., Farmington 63640
Chastain, Charles W., Farmington 63640
Crouch, F. Richard, Farmington 63640
Datta, N. K., Bonne Terre 63628
Dennis, W. Paul, 1000 N. Main, Desloge
63640
Dent, George W., Jr., 301 W. Liberty,
Farmington 63640
Dettmer, Robert F., Ironton 63650
Dierker, H. D., 301 W. Liberty, Farmington
63640
Farmer, Norma D., Farmington 63640
Ford, William, Farmington 63640
Gray, Walter C., R.R. 3, Box 189, Farming-
ton 63640
Grossman, Marvin, Fredericktown 63645
Hardy, Stanton L., Desloge 63601
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La Jolla, Calif. 92037
Hector, Emmett F., Farmington 63640
Hoye, Robert C., 301 W. Liberty, Farming-
ton 63640
Huckstep, Robert A., Rt. 1, Box 3, Farming-
ton 63640
Hunt, John W., Jr., Rt. 4, Box 101, Farm-
ington 63640
Karraker, Alvan G., Medical Arts Clinic,
Farmington 63640
Kim, Longius, 43 St. Joe, Rivermines 63668
Kiyancilar, Mehmet E., Farmington State
Hospital, Farmington 63640
Lee, Ernesto Y., Austin Plaza, Potosi 63664
Mardini, Edward E., Bonne Terre 63628
Menne, Marvin C., Ironton 63650
Mullen, Jack, Bonne Terre 63628
Neukom, George B., Farmington State Hos-
pital #4, Box #6, Farmington 63640
Newcomb, Arthur D., 100 B., W. 10th, La-
mar 64759
Nicolay, Bill, Madison Memorial Hospital,
Fredericktown 63645
Oliver, James A., Farmington 63640
Pichardo, Javier A., Farmington 63640
Raksakulthai, V., 703 Main, Fredericktown
63645
Rao, A. R., 703 W. Main, Fredericktown
63645
Sermchief, Chaiyarat, 703 W. Main, Fred-
ericktown 63645
Simpelo, R. V., Austin Plaza, Potosi 63664
Tan, Sioe Sien, Farmington State Hospital
Farmington 63640

* Doctor of Osteopathy.

Taylor, Van W., 54 Church, Bonne Terre
63628
Tiffany, Delbert E., Farmington State Hos-
pital, Farmington 63640
Tuttle, Jay F., Farmington State Hospital,
Farmington 63640
Vibulakaopun, Pairat, 30 N. Allen, Bonne
Terre 63628
Watkins, George L., Jr., 1105 Rancho Rd.,
La Jolla, Calif. 92037

**MISSISSIPPI COUNTY
(SEMO County Medical Society)
MONITEAU COUNTY MEDICAL
SOCIETY
(California 65018)**

Fulks, Richard B., California
Gallagher, Lionel M., California
Latham, Kenyon S., California

**MONROE COUNTY
(Chariton-Macon-Monroe-Randolph
County Medical Society)**

**MONTGOMERY COUNTY MEDICAL
SOCIETY**

Byland, Samuel J., Wellsville 63384

**MORGAN COUNTY MEDICAL SOCIETY
(Versailles 65084)**

Gunn, Jack, Versailles
Hall, C. Robert, Versailles
Kaufman, Ruth, Versailles
Lyle, Robert R., Versailles
Washburn, J. Loren, Versailles

**NEW MADRID COUNTY
(SEMO County Medical Society)**

**NEWTON COUNTY
(Ozarks Medical Society)**

**NORTH CENTRAL COUNTIES
MEDICAL SOCIETY
(Adair-Schuyler-Knox-Sullivan-Putnam
Counties)
(Kirksville 63501)**

English, Milton T., Jr., 2902 N. Baltimore,
Kirksville
Tarvydas, Francis, Edina 63537

**NORTHWEST MISSOURI MEDICAL
SOCIETY
(Nodaway-Holt-Atchison-Gentry-Worth
Counties)**

Bare, Edward F., 102 S. 6th, Tarkio 64491
Bauman, Henry C., 929 W. 3rd, Maryville
64468
Byland, Benjamin F., Maryville 64468
Carlin, Albert L., Stanberry 64489
Carpenter, Wallace, Rock Port 64482
Dizney, Desmond M., Student Health Ser-
vices, Northwest Mo. State Univ., Mary-
ville 64468
Dunshee, Robert E., Maryville 64468
Harr, Patrick B., South 71 Hwy., Maryville
64468
Humphrey, James, Mound City 64470
Imes, Elvin D., Maryville 64468
Khan, M. Osman, St. Francis Hospital,
Maryville 64468
Matteson, Frank B., Grant City 64456
Morgan, Troy O., Jr., Albany 64402
Niedermeyer, Edward L., Tarkio 64491
Wanamaker, John M., Rock Port 64482
Wempe, G. Raymond, Maryville 64468

**OREGON COUNTY
(South Central Counties Medical Society)**

**OSAGE COUNTY
(Unorganized)****OZARK COUNTY
(South Central Counties Medical Society)**

**OZARKS MEDICAL SOCIETY
(Barry-Lawrence-Stone-Christian-Taney-
Newton-McDonald Counties)**

Anderson, Paul B., Neosho 64850
Apostol, Andres G., 801 Lincoln St., Monett
65708
Betz, Richard J., Neosho 64850
Betz, Robert F., Neosho 64850
Bizek, Joseph L., 500 A Porter, Aurora
65605
Blankenship, George W., Neosho 64850
Bowman, Melvin C., Neosho 64850

Brown, Frederick B., Aurora 65605
Carter, James R., Neosho 64850
Cowley, Ray G., State Chest Hosp., Mt.
Vernon 65712
Crain, James W., Branson 65616
Cruz, Sergio G., Jr., 801 Lincoln, Monett
65708
Dabbs, Wilbur D., Neosho 64850
Datta, Jyoti S., Cottage #5, Missouri State
Chest Hosp., Mt. Vernon 65712
Donley, Robert R., Monett 65708
Esparrago, Francisco R., Jr., Monett 65708
Galinsky, Leon, 164 E. Paseo Chuparosas,
Green Valley, Ariz. 85614
Gardner, Joseph W., 8 Walnut Lane, Kim-
berling City 65686
Gillispie, Roy, Branson 65616
Glass, William J., Jr., Monett 65708
Glover, Kenneth, Mt. Vernon 65712
Graves, Arthur J., Mt. Vernon 65712
Hamilton, William P., Aurora 65605
Helleweg, Charles E., Mt. Vernon 65712
Huntington, Ione, Mt. Vernon 65712
Kenney, Roy E., Neosho 64850
Kerr, Frank T., Monett 65708
Lentz, Harold C., Neosho 64850
Magness, William C., Century Park, Apt. 9,
1101 N. Elm, Nevada 64772
Mars, Hartley F., Forsyth 65653
Merideth, Mary Jane, Cassville 65625
Montellano, Arturo H., 808 Euclid, Monett
65708
Morrison, T. A., Aurora 65605
Oceano, Victor G., 808 Euclid, Monett
65708
Olive, George C., Neosho 64850
Parkison, Donald E., Shell Knob Medical
Center, Shell Knob 65747
Regier, Carl M., Skaggs Community Hosp.,
Branson 65616
Roper, Stanley D., Ozark 65721
Spears, Charles A., 1153 W. Hwy. 76,
Branson 65616
Taylor, Leo T., P. O. Box 249, Neosho
64850
Willcox, Roger A., 115 Sunshine, Branson
65616
Wommack, Fred L., Crane 65633

**PEMISCOT COUNTY MEDICAL
SOCIETY**

Aquino, Philip J., Caruthersville 63830
Bernard, J. W., Caruthersville 63830
Cain, Charles F., Caruthersville 63830
Grable, James, Portageville 63873
Gubin, Alan S., Caruthersville 63830
McCoy, Warren R., Caruthersville 63830
McKaskle, Clarence W., Caruthersville
63830
Painter, Andrew E., Portageville 63873
Painter, Lattie B., Jr., Portageville 63873
Shirey, Arnold G., Hayti 63851

**PERRY-STE. GENEVIEVE COUNTIES
MEDICAL SOCIETY**

Carron, Oscar A., Perryville 63775
DeGenova, Gerard H., Ste. Genevieve 63670
Eugenio, Romeo R., Perry Plaza Medical
Center, Perryville 63775
Fairchild, James F., Perryville 63775
Feltz, Lawrence W., Perryville 63775
Fischer, Theodore, Altenburg 63732
Key, Martin L., Center Dr. & Hospital La.,
Ste. Genevieve 63670
Limpiphaphat, Dhajphone, Perry Plaza
Med. Center, Perryville 63775
Limpiphaphat, Ester, Perry Plaza Med.
Center, Perryville 63775
Lutkewitte, Joseph F., Ste. Genevieve 63670
McDermott, Alfred E., Perryville 63775
Pontillas, Job B., Perryville 63775
Utterman, William F., Lake Forest Estates,
Ste. Genevieve 63670

**PETTIS COUNTY MEDICAL SOCIETY
(Sedalia 65301)**

Azan, Kenneth, 1718 S. Ingram
Block, J. E., Rt. 2, Box 53B
Boger, James W., 500 W. 16th St.
Braverman, Elliot M., 1501 S. Grand Ave.
Brazos, John C., Smithton 65350
Campbell, Albert J., Jr., 625 E. 13th
Cole, William R., Rt. 1, Smithton 65350
Daum, Harold F., Bothwell Memorial Hosp.
Edmonds, Robert W., 1718 S. Ingram
Edwards, David R., 700 S. Limit
Eldenburg, Donald, 700 S. Limit
Emert, Frank L., Jr., 1701 S. Lafayette
Erickson, H. John, 1718 S. Ingram
Farkas, James R., Bothwell Memorial Hosp.

Fisher, Stanley D., 500 W. 16th
Glass, Robert L., 403 W. Broadway, Colum-
bia 65201
Hopkins, Thomas J., 700 S. Limit
Hopkins, T. Spencer, 1718 S. Ingram
Lackey, John, 1718 S. Ingram
Lamy, John E., 400 N. Road St., Elizabeth
City, N.C. 27909
Lowe, Alvin L., 621 W. 16th St.
Maddox, Albert R., P. O. Box 907
Owens, John H., Bothwell Memorial Hosp.
Proctor, Donald C., 700 S. Limit
Roberts, Paul A., 110 W. Marshall, Sweet
Springs 65351
Snowe, Robert J., 1718 S. Ingram
Stauffacher, C. Gordon, 700 S. Limit
Stewart, Robert H., 201 Driftwood Dr.
Stockwood, Robert C., 1718 S. Ingram
Sull, Wong J., 403 W. Broadway
Van Dyke, Elmer H., 1718 S. Ingram
Walter, Archie L., 500 W. 16th St.
Worley, Charles A., Sweet Springs 65351

PHIELPS COUNTY
(Mid-Missouri County Medical Society)

PIKE COUNTY MEDICAL SOCIETY

Duensing, George F., 211 S. 3rd, Louisiana
63353
Glenn, Edward H., III, Bowling Green
63334
Jackson, Edward K., 215 S. Third, Clarks-
ville 63336
Lewellen, Charles H., Louisiana 63353
Martin, W. Joe, Louisiana 63353
Middleton, John W., Louisiana 63353
Miles, Glenn E., 834 Sylvan Point Dr., Mt.
Dora, Fla. 32757
Nickels, Mathew L., 420 Forest Hills Dr.,
Louisiana 63353
Pitney, Phillip W., 211 S. 3rd, Louisiana
63353
Stuerman, Lawrence G., 211 S. 3rd, Lou-
isiana 63353
Wilcoxon, William B., Bowling Green 63334

PLATTE COUNTY MEDICAL SOCIETY

Allen, S. Lloyd, 3809 N.W. 62 Terr., Kan-
sas City 64151
Kimball, Ireland W., 2709 Hospital Dr.,
Kansas City 64116
Thurman, Hill C., Parkville 64152
Vescovo, Paul C., 4106 Vivion Rd., Kansas
City 64119

POLK COUNTY
(Dallas-Hickory-Polk-Dade County
Medical Society)

PULASKI COUNTY
(Mid-Missouri County Medical Society)

PUTNAM COUNTY
(North Central Counties Medical Society)

RALLS COUNTY
(Marion-Ralls-Shelby County Medical
Society)

RANDOLPH COUNTY
(Chariton-Macon-Monroe-Randolph
County Medical Society)

RAY COUNTY
(Lafayette-Ray County Medical Society)

REYNOLDS COUNTY
(Mineral Area County Medical Society)

RIPLEY COUNTY
(Butler-Wayne-Ripley-Carter County
Medical Society)

ST. CHARLES-LINCOLN COUNTY
MEDICAL SOCIETY
(St. Charles 63301)

Altman, Marvin P., 2850 W. Clay
Alul, Michael, 1650 Boonslick
Bagwe, Ranjit M., 1301 Boonslick
Baird, Keim L., 2850 W. Clay St.
Brown, Richard J. C., 1245 Graham Rd.,
Florissant 63031
Cabrera, Tomas V., 79 Cottleville, St. Peters
63376
Canty, Eugene J., 114 N. Main
Carpenter, James L., 2 Westbury Square
Clever, Henry W., Jr., 1301 Boonslick Rd.
Commerford, John F., 1301 Boonslick Rd.

• Doctor of Osteopathy.

Connelly, Michael W., #18 Huntleigh
Downs, Frontenac 63131
Cova, Reno R., Jr., 11115 New Halls Ferry,
Florissant 63031
Creech, Joseph C., Troy 63379
Crider, Russell J., 222 S. 2nd St.
Curry, Michael J., 2850 W. Clay
Damron, Edward O., Elsberry 63343
Del Pizzo, Ferdinand, Jr., 1301 Boonslick
Rd.
Desai, Ravindra, 1301 Boonslick
Difilippo, Emil A., 14824 Wood Ford Way,
Bridgeton 63044
Duling, Gerald J., 2850 W. Clay St.
DuMontier, R. J., #2 O'Fallon 63366
Duncan, David, #2 Westbury
Felder, James P., 303 First Capitol
Fleming, Robert J., 120 First Capitol Dr.
Floerchinger, James S., St. Charles Clinic
Goldkamp, John D., 2850 W. Clay St.
Gore, Glenn L., 1650 Boonslick
Hammes, Roman E., 1000 Lake St. Louis
Bld. 63367
Hetlage, Louis P., Troy 63379
Kamada, Tsutomu, 115 W. Pitman, O'Fallon
63366
Keefe, David M., 2850 W. Clay
Keefe, Lawrence W., 4511 Forest Blvd., St.
Louis 63108
Keller, Robert, 704 W. Pearce Blvd., Wentz-
ville 63385
Kingsbury, Robert J., 222 South 2nd
Kister, George E., 302 S. 2nd St.
Linsenneyer, Charles M., 117 First Capitol
Dr.
McQueen, Samuel, 11636 Administration
Dr., St. Louis 63141
Muenster, Vincent P., 2850 W. Clay St.
Muhm, Harvard Yale, 1301 Boonslick
Neubeiser, Ben L., 1628 N.E. 6th Ct., Ft.
Lauderdale, Fla. 33301
Obando, Francisco J., Troy 63379
Olson, Richard O., Jr., 2850 W. Clay
Ordoukhanian, Tatool, 1301 Boonslick
Perna, Vincent P., 11636 Administration
Dr., Creve Coeur 63141
Poggemeier, William H., Jr., 304 S. 2nd St.
Rahman, Mohammad H., 2850 W. Clay
Reisa, Ronald C., 2 Westbury Dr.
Rice, Ronald B., 1301 Boonslick
Roach, Edward A., 211 Rio Vista
Roter, Alexander M., #2 Westbury Dr.
Rother, Paul H., 1301 Boonslick Rd.
Roxas, Generoso P., #3 Westbury
Schneider, Thomas A., 2850 W. Clay St.
Schuetz, Alfred, 904 Indian Hills
Smoller, Martin B., 2850 W. Clay St.
Soucy, John C., 2850 W. Clay
Suarez, Pedro L., 1360 S. 5th
Taglia, Santo W., 2850 Clay
Tassi, Albert A., 601 Indian Hills
Tejero, Jonas S., 1650 Boonslick
Thiele, O. K., #2 Westbury
Towers, Orville W., 1301 Boonslick Rd.
Vafi, Houshang, 1360 S. 5th
Vart, Gary R., 1650 Boonslick
Vighi, James R., 2850 W. Clay
Westerfeld, Roy A., 1301 Boonslick Rd.
Wipfler, Earl J., Jr., 405 Duckett
Yaeger, Gerald A., 2444 W. Clay St.

ST. CLAIR COUNTY
(West Central Missouri Medical Society)

ST. FRANCOIS COUNTY
(Mineral Area County Medical Society)

STE. GENEVIEVE COUNTY
(Perry-St. Genevieve Counties
Medical Society)

ST. LOUIS MEDICAL SOCIETY
(St. Louis)

Aach, Richard D., Barnes Hospital Plaza
63110
Abel, Charles C., 4511 Forest Park Blvd.
63108
Abel, Oliver, III, 4511 Forest Park Blvd.
63108
Abelardo, Miguel L., 300 S. Grand 63139
Abell, Walter E., 6261 Reber Pl. 63139
Abinoja, Conrado B., 4909 Lindenwood
63109
Abodeely, Daniel, 918 Bellstone 63119
Abrams, Morris, #319, 4625 Lindell Blvd.
63108
Abramson, Charles L., 141 N. Meramec
63105
Acker, Harry L., 950 Francis Pl. 63105
Ackerman, Lauren V., #8 Chickadee Way,
Strange Neck Setauket, Long Island, N. Y.
11733

Adelman, Eugene, 1035 Bellevue 63117
Adeyemi-Doro, Henry, 2601 N. Whittier
63113
Adler, Benard C., 4511 Forest Park Blvd.
63108
Afuwape, Emmanuel A., 2601 N. Whittier
63113
Agasino, Armela R., 2244 Union Rd. 63125
Agasino, Gaudencio L., 20 Hughes Ford
Rd., Sullivan 63080
Agress, Harry, 8631 Delmar 63124
Aguinaldo, Jaime A., 9313 Manchester
63119
Ahadi, Abd Ul Ahad, 13029 Ambois Dr.
63141
Ahern, Archibald M., 3915 Watson Rd.
63109
Ahlering, George H., #560, 621 S. New
Ballas Rd. 63141
Ahmad, Bashir, 7933 Elton 63123
Ahuja, A. L., 5400 Arsenal 63139
Aitken, Louis F., 4989 Barnes Hosp. Plaza
63110
Aker, Umit, 911 S. Brentwood 63105
Akyol, Salim, #4 Highfield Lane 63131
Albert, Ingrid, 1218 Oxford Hill Court
63141
Alegre, Jorge M., 114 N. Taylor 63108
Aleksander, Bernardo, 1420 Grattan 63104
Alexander, Frazier D., 4969 Enright Ave.,
63108
Allen, Henry C., 2821 N. Ballas 63131
Allen, Hollis N., 2821 N. Ballas Rd. 63131
Allen, Melvin A., 3555 Sunset Office Dr.
63127
Allen, Willard M., University of Maryland,
Baltimore, Md. 21201
Allen, William E., Jr., 720 N. Sarah 63108
Almiron, Osias A., 120 Progress Pkwy.,
Maryland Heights 63043
Alonso, Jose Mario V., Jr., 10110 Hilltop
Dr. 63128
Alonso, William A., 4989 Barnes Hosp.
63110
Alonso-Yague, P., 330 Northland Medical
Bldg. 63136
Alpern, Louis M., Barnes Hospital Plaza
63110
Altheide, J. Paul, 4605 Lindell 63108
Alvarez, Luis L., 1606 Grattan 63104
Alvis, Bennett Y., 211 N. Meramec 63105
Alvis, Edmund B., 211 N. Meramec 63105
Amado-Ledo, David E., 300 S. Grand Blvd.
63103
Amin, Navinkumar, 607 N. Grand Blvd.
63103
Amjad, Mohammed T., 1211 Blairshire Dr.
Manchester 63011
Analkat, H. N., 2639 Miami 63118
Anderson, Charles B., 14 Frederick 63122
Anderson, John M., 100 N. Euclid 63108
Angelillo, John C., 5117 Pine Way, Durham,
N. C. 27705
Anglo, Luis B., 3912 Ritz Center 63125
Anstey, George, 10449 St. Charles Rock
Rd., St. Ann 63074
Anthony, Elwyn J., 369 N. Taylor Ave.
63108
Archer, Carol R., 1325 S. Grand 63104
Arenberg, Irving K., 517 S. Euclid 63110
Arias, Fernando, Barnes Hospital Plaza
63110
Arneson, Axel N., 4511 Forest Park 63108
Arney, William G., 16 Hampton Village
Plaza 63109
Arnold, Kenneth J., 4989 Barnes Hospital
Plaza 63110
Arnot, John P., 35 N. Central Ave. 63105
Arribas, Neva P., 4989 Barnes Hospital
Plaza 63110
Asghar, Mohammad, 2601 N. Whittier
63113
Auer, Arthur I., 667 Langton 63105
Auer, Edward T., #9 Clayton Terr. 63131
Aufderheide, C. R., 216 Northland Medical
Bldg. 63136
Auguste, Jean Meledain, 4400 Lindell Blvd.
63108
Augustin, Cesar, 17 Fries Dr. 63132
Avioli, Louis V., P. O. Box 14109 63178
Aykent, Yavuz, 911 S. Brentwood Blvd.
63105
Aylward, Howard J., 6651 Chippewa 63109
Azuma, Nobutaka, 3901 Tholozan 63116
Babka, Joseph J., 3845 Federer Pl. 63116
Backer, Matthias H., Jr., 10345 Highway 66
63127
Badger, Virginia M., 113 Stoneyside Lane
63132
Bailey, Drennan, 6356 Clayton Rd. 63117
Baldwin, Richard, Jr., 50 Overhill 63124
Ballal, H. S., 3915 Watson Rd. 63109
Ballinger, Walter F., II, 4960 Audubon
Ave. 63110

- Bandle, Donald F., 3801 January Ave. 63139
 Banez, Colita R., 5400 Arsenal 63139
 Banton, M. Roman, 13634 Peacock Farm Rd. 63131
 Banton, Thomas J., 114 Northland Medical Bldg. 63136
 Banton, William C., 601 S. Brentwood 63105
 Bardsley, John L., 621 S. New Ballas Rd., 63141
 Barner, Hendrick, 1325 S. Grand Blvd. 63104
 Barrett, Scott R., 5505 Delmar 63112
 Bartlett, Robert W., 6459 Wydown Blvd. 63105
 Bartnick, Mitchell, RR #2, Box 38, De Soto 63020
 Baue, Arthur E., 333 Cedar, New Haven, Conn. 06510
 Bauer, Eugene A., Barnes Hospital Plaza 63110
 Bauer, John D., Northland Medical Bldg. 63136
 Bauer, Maria, 1935 Edison Ave., Granite City, Ill. 62040
 Bauer, Otto, 1935 Edison Ave., Granite City, Ill. 62040
 Baula, Armando G., 609 Jeffersonian Dr. 63125
 Baumgarten, Walter, Jr., 1034 S. Brentwood Blvd. 63117
 Bauschard, Frederick, 7157 Pershing 63130
 Bayraktar, Ahmad K., 915 N. Grand Blvd. 63125
 Beare, J. Byron, 777 S. New Ballas Rd. 63141
 Beato, David L., 6305 Devonshire 63109
 Beaty, William R., 35 Muirfield La. 63141
 Becker, Bernard, 640 S. Kingshighway 63110
 Becker, Edward J., 906 Olive 63101
 Becker, Stanley C., 4401 Hampton 63109
 Beckman, Donald E., 4205 Virginia Ave. 63111
 Behbahani, Parviz M., 1325 S. Grand 63104
 Behrens, Donald T., 3654 S. Grand Blvd. 63118
 Behrens, Gerald L., 11271 Hermitage Hill Rd. 63131
 Beidle, Raymond J., 500 Northwest Plaza, St. Ann 63074
 Belancourt, Dunet F., 600 N. Union 63108
 Belaw, Joe E., 777 S. New Ballas 63141
 Bell, Martin J., 500 S. Kingshighway 63110
 Bell, Robert M., 165 Lake Apollo Dr., Hannibal 63401
 Bennett, John B., 6150 Oakland 63139
 Bennett, Kenneth J., 4919 Forest Park 63108
 Benson, John F., 3737 N. Kingshighway 63115
 Berard, Louis N., 812 Olive 63101
 Berg, Edward F., 5 Cedarcrest, Ladue 63132
 Berg, Leonard, 4989 Barnes Hospital Plaza 63110
 Berg, Ralph, 3203 S. Grand Blvd. 63118
 Bergman, Hugo F., 3720 Washington 63108
 Bergman, Dwayne, 6500 Chippewa 63109
 Bergner, Grace E., 114 N. Taylor 63108
 Berland, Harry I., 141 N. Meramec 63105
 Berman, William, 4910 Forest Park Blvd. 63108
 Berni, Anthony A., 777 S. New Ballas Rd. 63141
 Berry, John W., 621 S. New Ballas Rd. 63141
 Bettonville, Paul J., Jr., 6331 Pershing 63130
 Bhatara, Vinod S., 1220 Chambers Rd., Columbus, Ohio 43221
 Biddy, Ralph L., 965 Masonridge 63141
 Billy, Lawrence J., 1325 S. Grand 63104
 Bilsky, Nathan, 2 Somerset Dr. 63124
 Bindbeutel, Donald A., 25 Willow Oak Lane 63122
 Binder, Morton A., 4652 Maryland 63108
 Bircher, John L., 3932 Federer Pl. 63116
 Bird, H. Waldo, 4511 Forest Park Blvd. 63108
 Birge, Clifford A., 12 Ridgeway, Richmond Heights 63117
 Bishop, Mary M., 1000 Green St., San Francisco, Calif. 94133
 Bisno, Daniel, 8000 Bonhomme Rd. 63105
 Black, Joseph, 4989 Barnes Hosp. 63110
 Blackwell, Charles R., 2044 Running Ridge, Maryland Heights 63043
 Blair, John D., 1465 S. Grand 63104
 Blair, Olga M., 1402 S. Grand 63104
 Blair, Vilray P., Jr., #9 Stoney Brooks La. 63124
 Blath, Richard A., Barnes Hospital Plaza 63110
 Bleisch, Nadya K., 524 Midvale 63130
 Bleisch, Virgil R., 524 Midvale 63130
 Block, Arnold S., 100 North Euclid 63108
 Blount, Lee, Jr., 3737 N. Kingshighway 63115
 Blythe, James, 615 S. New Ballas Rd. 63141
 Boc, Inocencio M., 2745 Ashfield Dr. 63129
 Bockelman, Clifford H., 2615 Brentwood Blvd. 63117
 Boedeker, Roy V., 1035 Bellevue 63117
 Bohigian, George, 211 N. Meramec 63105
 Bohling, Corey A., 621 S. New Ballas Rd. 63141
 Boldizar, Albert G., 2821 N. Ballas Rd. 63131
 Boldt, Thomas H., 3394 McKelvey Rd., Bridgeton 63044
 Bollozos, George D., 3933 S. Broadway 63118
 Bolton, Robert L., P. O. Box 197, Ballwin 63011
 Bond, Leslie F., 3400 N. Kingshighway 63115
 Bondurant, Bryce H., 134 Frontenac Forest 63131
 Bonfanti, Albert L., P. O. Box 4148, Jennings Station 63136
 Boniuk, Isaac, 4989 Barnes Hospital Plaza 63110
 Boonkham, C., 3466 Bridgeland Dr., Bridgeton 63044
 Borowsky, Benjamin A., 4910 Forest Park 63108
 Bourjolly, Wilson, 4650 Wallington Ct. 63121
 Bourke, Thomas E., 3394 McKelvey Rd., Bridgeton 63044
 Boveri, Joseph C., 1862 Point Oak Dr. 63131
 Bowdren, Edward H., #2 Berkshire La. Richmond Heights 63117
 Bowen, Stephen F., Jr., 16 Hampton Village Plaza 63109
 Bowerman, Harold H., 607 N. Grand 63103
 Bowers, James E., 12166 Big Bend Blvd., Kirkwood 63122
 Bowersox, Warren A., 319 N. First St., Pacific 63069
 Bowles, William T., 4960 Auduhon Ave. 63110
 Boyarsky, Saul, 4960 Auduhon Ave. 63110
 Boyd, Arthur M., 1615 S. Grand Blvd. 63104
 Bradley, Richard V., 1034 S. Brentwood 63117
 Brady, Harry R., 1609 Dumorr Dr. 63131
 Brancato, Donald H., 11115 New Halls Ferry Rd., Florissant 63033
 Brangle, Robert W., 765 High Hampton Rd. 63124
 Bremer, Rita, 3024 Orton, St. Charles 63301
 Bremser, Harry L., 6742 Plainview 63109
 Brennan, Daniel J., 777 S. New Ballas Rd. 63141
 Brennan, George A., 3535 S. Jefferson 63118
 Brennan, Robert A., 3535 S. Jefferson 63118
 Brennan, Robert V., 111 N. Taylor 63122
 Brereton, Robert L., 206 N. Clay Ave. 63122
 Bricker, Eugene M., Rt. 2, Clarksville 63336
 Brielmaier, Charles R., 1535 N. Woodlawn 63122
 Brigham, D. W., 1325 S. Grand 63104
 Brodeur, Armand E., 440 Bamhury Way 63131
 Bronson, Shael S., 777 S. New Ballas Rd. 63141
 Brookes, Robert D., 5505 Delmar Blvd. 63112
 Brown, Goronwy O., 1325 S. Grand 63104
 Brown, Goronwy O., Jr., 6359 Waterman 63105
 Brown, E. Eugene, 622 S. Hanley Rd. 63105
 Brown, James M., 11936 Beth Dr. 63126
 Brown, Seymour, 2169 Bantry Ln., Chesterfield 63017
 Bruce, Helen L., 3263 Hawthorne Blvd. 63104
 Bruce, Robert M., 4550 Scott 63110
 Brugger, Thomas, 2560 N. Moreland, Cleveland, Ohio 44120
 Bruns, Kenneth, #1 Salem Estates 63124
 Bryan, James H., 950 Francis Pl. 63105
 Bryan, William T. K., 950 Francis Pl. 63105
 Bucy, James C., 4960 Auduhon 63110
 Budd, John J., Jr., 9012 Manchester 63144
 Buettner, John B., 3106 Queeny Towers 63110
 Burde, Ronald M., 517 S. Euclid Ave. 63110
 Burdge, Robert E., 1325 S. Grand 63104
 Burford, Thomas H., Barnes Hospital Plaza 63110
 Burgess, Dean, 4989 Barnes Hosp. 63110
 Burke, Robert J., 6379 Devonshire 63109
 Burkhart, Edward F., Mercy Doctor's Building, 621 S. New Ballas Rd. 63141
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EIGHTH DISTRICT: Barton,* Dallas-Hickory-Polk-Dade,* GREENE, JASPER, Ozarks** (Barry, Christian, Lawrence, McDonald, Newton, Stone, Taney),* Webster.*

NINTH DISTRICT: Shannon,* Mid-Missouri (Crawford, Dent, Laclede, Maries, Phelps, Pulaski),* SOUTH CENTRAL (Douglas, Howell, Oregon, Ozark, Texas, Wright).

TENTH DISTRICT: Bollinger,** BUTLER-RIPLEY-WAYNE-CARTER, CAPE GIRARDEAU, DUNKLIN, MINERAL AREA (Iron, Madison, Reynolds, St. Francois, Washington), Pemiscot,* Perry-Ste. Genevieve,* SEMO (Mississippi, New Madrid, Scott, Stoddard).*

CAPITALIZED COUNTIES—Organized Auxiliary.

* No organized Auxiliary.

** No Medical Society.

STATE PAST PRESIDENTS—1924-1975

MRS. GEORGE H. HOXIE° (Jackson)**	1924-25	MRS. C. ALEX MCBURNEY (Saline)	1953-54
MRS. M. P. OVERHOLZER° (West Central)	1925-26	927 Hurt, Slater 65349	
MRS. ARTHUR B. MCGLOTHLAN° (Buchanan)**	1926-27	MRS. WILFRED E. MARTIN (Lafayette-Ray)	1954-55
MRS. W. M. BICKFORD° (Saline)	1927-28	403 E. 2nd, Odessa 64076	
MRS. WILLARD BARTLETT, SR. (St. Louis City)	1928-29	MRS. FRANK B. LEITZ (Jackson)	1955-56
53 Westmoreland Pl., St. Louis 63108		308 W. 116th, Kansas City 64114	
MRS. M. P. RAVENAL° (Boone)	1929-30	MRS. CHARLES T. SHEPHERD (St. Louis County)	1956-57
MRS. A. W. MCALESTER° (Jackson)	1930-31	10 Covington Meadows, St. Louis 63131	
MRS. U. J. BUSIEK (Greene)	1931-32	MRS. ARMAND D. FRIES° (St. Louis City)	1957-58
1635 E. Walnut, Springfield 65802		MRS. HENRY C. BAUMAN (Nodaway-Holt-Atchison-Gentry-Worth)	1958-59
MRS. DAVID S. LONG° (West Central)	1932-33	929 W. 3rd, Maryville 64468	
MRS. HUDSON TALBOT (St. Louis City)	1933-34	MRS. STANLEY S. PETERSON (Greene)	1959-60
St. Matthew Manor, 227 Brown's Lane, Louisville, Ky. 40207		721 E. Stanford, Springfield 65804	
MRS. W. H. GOODSON° (Clay)	1934-35	MRS. JORDAN KELLING (Lafayette-Ray)	1960-61
MRS. M. PINSON NEAL° (Boone)	1935-36	P. O. Box 171, Waverly 64096	
MRS. WALTER C. KIRSCHNER° (St. Louis City)	1936-37	MRS. FREDERICK E. WADE (Jackson)	1961-62
MRS. CHARLES H. WERNER° (Buchanan)	1937-38	413 W. 62nd, Kansas City 64113	
MRS. HERBERT L. MANTZ (Jackson)	1938-39	MRS. J. MARTYN SCHATTYN (St. Louis County)	1962-63
1209 Romany Rd., Kansas City 64113		9 Huntleigh Downs, Frontenac, St. Louis 63131	
MRS. PAUL F. COLE (Greene)	1939-40	MRS. LAWRENCE S. CRISPELL (Jasper County)	1963-64
1819 Main, Quincy, Ill. 62301		911 Kensington, Joplin 64801	
MRS. S. P. HOWARD° (Cole)	1940-41	MRS. DELEVAN CALKINS° (St. Louis City)	1964-
MRS. J. J. DRACE (Cape Girardeau)	1941-42	MRS. RALPH WOODS BOHNSACK (Grand River)	1964-66
315 Frederick, Cape Girardeau 63701		635 Skyline Dr., Brookfield 64628	
MRS. FRANK L. DAVIS° (St. Louis City)	1942-43	MRS. WALLACE R. STACEY (Jackson)	1966-67
MRS. ROBERT C. HAYNES (Saline)	1943-44	3407 Shady Bend Dr., Independence 64052	
754 Eastwood, Marshall 65340		MRS. EVORA WILLIAMS (Clay)	1967-68
MRS. J. B. McCUBBIN° (Callaway)	1944-45	616 Ridgeway Dr., Liberty 64068	
MRS. HARRY M. GILKEY° (Jackson)	1945-46	MRS. E. F. BUTLER (Buchanan)	1968-69
MRS. W. E. KOPPENBRINK, SR. (Lafayette-Ray)	1946-47	3110 Douglas, St. Joseph 64506	
1303 Main, Higginsville 64037		MRS. JAMES A. REID (Saline)	1969-70
MRS. W. L. ALLEE° (Miller-Morgan-Moniteau)	1947-48	324 Rosehill, Marshall 65340	
MRS. AUGUST A. WERNER° (St. Louis City)	1948-49	MRS. WILLIAM M. WALKER (Greene)	1970-71
MRS. JOHN J. O'CONNELL° (St. Louis County)	1949-50	2845 Southern Hills Blvd., Springfield 65804	
MRS. GRETCHEN VAN DEL McCLEAN (Jackson)	1950-51	MRS. FRANK J. VALACH (St. Louis County)	1971-72
3510 Front St., San Diego, Calif. 92103		4 Nassau Circle, Creve Coeur 63141	
MRS. W. CAREY CHEEK (Greene)	1951-52	MRS. KEITH D. JONES (Johnson)	1972-73
1535 E. Meadowmere, Springfield 65804		711 S. Holden, Warrensburg 64093	
MRS. RICHARD A. SUTTER (St. Louis County)**	1952-53	MRS. CHARLES R. WILLMAN (Buchanan)	1973-74
7215 Greenway Dr., University City 63130		2105 Lovers Lane, St. Joseph 64505	
		MRS. GEORGE J. LYTTON (Jackson)	1974-75
		Hastings Regional Medical Center, Hastings, Neb. 68901	
		MRS. WILLIAM R. MCPHEE (Clay)	1975-76
		1205 W. 76th, Kansas City 64114	

• Deceased.
•• National President.

Roster of Woman's Auxiliary Members by Society

BOONE COUNTY (Columbia 65201)

Allen, Mrs. Joseph, 5813 St. Charles Rd.
Allen, Mrs. Robert, 4900 St. Charles Rd.
Allen, Mrs. William, 508 W. Briarwood La.
Almond, Mrs. Carl, 213 W. Blvd. South
Anderson, Mrs. Thomas R., 5 McGregor La.
Arnold, Mrs. Richard C., 814 Yale
Asel, Mrs. Norman, 1112 S. Glenwood
Baker, Mrs. James M., Rt. 4
Baker, Mrs. Sherwood A., 2620 Walther Ct.
Barbee, Mrs. Charles W., 3816 Cedar La.
Barbero, Mrs. Guilio J., 408 S. Glenwood
Beck, Mrs. Marcus R., 601 Rock Creek
Black, Mrs. Samuel, 300 S. Glenwood
Blackwell, Mrs. Charles, 3408-D Woodrail
Terr.
Bourgeois, Mrs. Curtis, Rt. 1, Rocheport
65279
Bungartner, Mrs. Roger W., 707 Timberhill
Rd.
Burns, Mrs. Thomas W., 310 E. Brandon
Rd.
Butt, Mrs. James, 1029 Yale
Bynum, Mrs. William, 3009 Skylark Dr.
Callen, Mrs. Kenneth, 3111 Skylark
Chalkley, Mrs. Judson, 614 W. Stewart Rd.
Cheek, Mrs. Charles W., 2700 Malibu Ct.
Cochran, Mrs. Donald, 112 Sappington
Cohen, Mrs. Harry B., 111 Alhambra
Colwill, Mrs. Jack, Countryside, Rt. 5
Cooper, Mrs. Maurice, 1000 Wayne Rd.
Cope, Mrs. James, Rt. 1, Rocheport 65279
Crowley, Mrs. Wm., 806 Crestland
Darnell, Mrs. Thos. F. B., 9-A Lakewood
Estates, Branson, 65616
Denninghoff, Mrs. James C., 1906 Vassar
Dexter, Mrs. James D., 510 Fairview Rd.
Eggers, Mrs. G. William, 1005 Cowan Dr.
Ferneau, Mrs. James, 1040 Queen Ann Dr.
Foote, Mrs. Jerry E., Rt. 4
Frazier, Mrs. Robert E., 367 Crown Point
Fueh, Mrs. Bartley, 108 Park Hill Ave.
Fuchs, Mrs. George, Jr., 1026 Hickory Hill
Dr.
Garrett, Mrs. Glen, 102 E. Brandon Rd.
Garrotto, Mrs. Lewis, 814 Hulen Dr.
Griffin, Mrs. William T., 822 Greenwood Ct.
Hall, Mrs. David G., 1031 Bourn Ave.
Hardwicke, Mrs. Henry, Ashland 65010
Harris, Mrs. Hugh S., Jr., 801 Cowan Dr.
Harris, Mrs. Robert J., 2505 E. Broadway
Hart, Mrs. William, 109 Sappington Dr.
Henzel, Mrs. John J., 3908 Faurot Dr.
Hickcox, Mrs. John P., 2616 Rollins Rd.
Hubbell, Mrs. Ira G., 302 McNab Dr.
Ide, Mrs. Carl, 600 Laurel Dr.
Jackson, Mrs. Robert L., 1103 W. Stewart
Rd.
Johnson, Mrs. Richard E., 129 Lindell Dr.
Joseph, Mrs. Donald, 1201 Parkridge
Kaplan, Mrs. Michael F., 1409 Overhill Rd.
Kardinal, Mrs. C. G., 1264 Sunset
Kays, Mrs. Kenneth M., 1033 Bourn
Keitzer, Mrs. W. Ford, 206 S. Glenwood
Keown, Mrs. Kenneth, 402 Westmount
Kerr, Mrs. Earl S., 1308 Fieldcrest
Kilburn, Mrs. Kaye, 2318 Ridgemont
La Chance, Mrs. Leopold, 324 S. Collier,
Centralia 65240
Ladenson, Mrs. Roland, 704 Westmount
Landhuis, Mrs. Leo R., Rt. 3
Leech, Mrs. Charles A., 815 W. Stewart Rd.
Leeper, Mrs. Claude K., 2016 Ivy Way
Leeper, Mrs. Sidlee W., 606 W. Stewart Rd.
Lehr, Mrs. James, 112 W. Brandon Rd.
Lillard, Mrs. Stephen B., 1413 W. Lexington
Cn.
Littin, Mrs. Lynn O., 3615 I-70 Dr. S.W.
Litwiller, Mrs. Raymond W., 1312 W.
Broadway
Lobeck, Mrs. Chas. C., Rt. 4, Hillcreek
Acre
Lodwick, Mrs. Gwilyn S., 911 LaGrange Rd.
Logue, Mrs. John, 912 Crestland
Lohmar, Mrs. Roland E., Rt. 5, Box 335
Marienfeld, Mrs. Carl, Rt. 1, Ashland 65010
Mayer, Mrs. William D., 1 Ridgely Rd.
McElroy, Mrs. Glenn, 3909 W. Broadway
Miller, Mrs. LeRoy, 32 Bingham Rd.
Millikan, Mrs. Larry E., 203 Orchard Ct.
Mitchell, Mrs. Frank, 2208 Danforth Ct.

Mitchell, Mrs. Lynn D., 200 Defoe Dr.
Monroe, Mrs. Dean, 2214 Ridgefield Rd.
Montie, Mrs. Joseph, Richland Rd.
Morgan, Mrs. Philip E., 2019 Crestridge
Mosby, Mrs. Larry D., 107 E. Brandon
Mullins, Mrs. Maurice, 608 West Blvd., So.
Nichols, Mrs. W. Kirt, 312 Proctor
Orth, Mrs. D. Gerald, 2404 Beachview Dr.
Overholser, Mrs. Milton, 110 E. Brandon
Rd.
Payne, Mrs. John, Route 5, Fulton 65251
Pearman, Mrs. Carl, P.O. Box 360
Perez-Mesa, Mrs. Carlos, 609 Stewart Rd.
Peterson, Mrs. Charles, Rt. 4
Pfefer, Mrs. Leland U., 2409 Buff Blvd.
Pingleton, Mrs. William, 113 Tracy Dr.
Polite, Mrs. Lenard, Rt. 1, Cedar Grove
Prendergast, Mrs. T. J., 600 Woodridge
Rall, Mrs. Kenneth, 1121 Danforth Dr.
Ridenhour, Mrs. C. E. Gene, Rt. 1, Cedar
Grove
Rikli, Mrs. Arthur E., 4003 Faurot Dr.
Rodgers, Mrs. Elrie, 202 S. Glenwood
Rogers, Mrs. Wallace, Ashland 65010
Ross, Mrs. Gilbert, Rt. 1
Royer, Mrs. Jerry, 2805 Overhill Rd.
Russell, Mrs. Garth, 1210 W. Broadway
Scheuber, Mrs. Charles, 505 W. Boulevard S.
Sights, Mrs. Warren P., Jr., 903 Westover
Silver, Mrs. Donald, 1028 Vegas Dr.
Simonds, Mrs. John F., 4100 Faurot Dr.
Smith, Mrs. J. Ned, Jr., 701 W. Boulevard S.
Smith, Mrs. Joe R., 222 East Parkway
Somers, Mrs. John E., Rt. 3
Spratt, Mrs. John, Jr., 105 S. Glenwood
Spurgeon, Mrs. Milo J., 404 Edgewood Ave.
Stephenson, Mrs. Hugh E., 5 Danforth Circle
Stewart, Mrs. W. B., 1401 Ridgemont
Stoy, Mrs. Robert, 811 Canterbury Dr.
Strussell, Mrs. Kenneth, 3717 Woodridge Ct.
Thomas, Mrs. Robert M., 2219 Danforth Ct.
Trumbower, Mrs. William D., 1709 Cliff Dr.
Van Dervoort, Mrs. Robert L., 3818 Cedar
La.
Vogel, Mrs. Curt M., 3707 Woodridge Ct.
Waggoner, Mrs. Charles, 712 Hilltop Dr.
Ward, Mrs. Jay, 308 Brewer
Washington, Mrs. Edward L., 204 W.
Stewart Rd.
Watson, Mrs. Trevor F., 2319 Bluff Blvd.
Watts, Mrs. Clark, 213 Devine Ct.
White, Mrs. Joseph, 222 W. Brandon Rd.
Wilhelm, Mrs. Kenneth G., 100 E. Alhambra
Williams, Mrs. Andrew F., 3709 Wayside
Dr.
Wilson, Mrs. George P., 918 Westwinds Dr.
Wilson, Mrs. John, 1117 Woodhill Rd.

BUCHANAN COUNTY (St. Joseph)

Acuff, Mrs. Robert P., 3015 Miller Rd.
64506
Andres, Mrs. Edward, 2323 NW Ext. Blvd.
64506
Baker, Mrs. W. C., Savannah 64485
Bartulica, Mrs. Nicholas, Box 265, Farleigh
Station 64506
Beck, Mrs. Paul, 3216 Coronado 64505
Beheler, Mrs. Edward M., 4609 Stonecrest
Terr. 64506
Benson, Mrs. Scott C., 2630 Ashland Ave.
64506
Berney, Mrs. Francis J., 1225 N. 10th 64501
Bryant, Mrs. Sydney L., 1805 N. 33rd 64506
Butler, Mrs. E. F., 3110 Douglas 64506
Callman, Mrs. George, P. O. Box 655,
Farleigh Station 64506
Carle, Mrs. Rachel, 2707 N. 26th 64506
Carpenter, Mrs. G. Tyson, 2612 Indian Trail
64506
Christ, Mrs. Martin H., 414 Benton Dr.
64504
Craig, Mrs. Owen W. D., 3408 Colony Sq. E.
64506
Craig, Mrs. Richard O., 4106 Miller Rd.
64505
Du Mont, Mrs. Clement, 1905 Francis 64501
Dyer, Mrs. Gary A., 802 N. 25th 64506
Fisher, Mrs. Joseph L., 2309 Ashland 64506
Forgrave, Mrs. John R., 2611 Cornell 64506
Forgrave, Mrs. Leon Paul, Hundley Dr.
64506
Forman, Mrs. George W., 2412 Ashland
64506
Garrison, Mrs. David L., 5101 E. Crest Ct.
64506
Grimes, Mrs. Manning E., 815 N. Noyes
Blvd. 64506
Hayes, Mrs. Paul W., 610 N. Noyes Blvd.
64506
Herman, Mrs. Allen I., 1909 N. 32nd 64506
Howden, Mrs. T. L., 2723 Francis 64501
Ide, Mrs. Lucien W., 1416 N. 25th 64506
Jimenez, Mrs. Jose, Box 263, 2222 Edge-
water 64506
Kieber, Mrs. R. W., 1915 N. 33rd 64506
Kline, Mrs. Edmund, 17 Stonecrest 64506
Knepper, Mrs. Paul, 2002 Ashland 64506
Lee, Mrs. Carleton H., 2716 Douglas 64506
Maginn, Mrs. R. L., 12 Wishbone Rd. 64506
Marston, Mrs. F. James, 2114 Lovers La.
64505
Martin, Mrs. John, 9 Lindenwood La. 64505
McDaniel, Mrs. John R., 1808 N. 29th
64506
McDonald, Mrs. Wallace, 29 Ridgeland Rd.
64505
McDonald, Mrs. Wilbur P., 6 Country Club
Rd. 64505
Meriwether, Mrs. Don R., 1826 Lovers La.
64505
Moen, Mrs. Berwyn H., 2214 Carper Dr.
64506
Mothershead, Mrs. John L., 2630 Farleigh
Terr. 64506
Mullican, Mrs. Charles N., 2103 Lovers La.
64505
Ness, Mrs. Carl K., 8 Lindenwood La. 64505
O'Brien, Mrs. Liam, State Hospital, Box 263
64502
O'Connor, Mrs. William B., 2316 N. 22nd
64505
Partamian, Mrs. Krikor O., 3405 Colony
Square W. 64506
Peterson, Mrs. Harold E., 2903 Frederick
64506
Paulson, Mrs. Gordon, 820 Ashland Ave.
64506
Pfeffer, Mrs. Robert, 1915 N. 29th 64506
Paulson, Mrs. Gordon, 820 Ashland Ave.
64506
Pifer, Mrs. Lawrence H., 2120 Manchester
Rd. 64505
Potter, Mrs. Caryl, Jr., 1 Pine Rd. 64505
Potter, Mrs. Thompson E., 2106 Lovers La.
64505
Prokop, Mrs. Joseph R., 29 Stonecrest,
64506
Raphel, Mrs. Jose, 1111 49th-Terr. 64506
Redmond, Mrs. William, 3102 Jule 64501
Riddell, Mrs. Richard V., 2610 Indian Trail
Dr. 64506
Rogers, Mrs. John T., 2502 Ashland 64506
Rosenthal, Mrs. Irwin, 5007 Stonecrest Terr.
64506
Rost, Mrs. William B., 2221 Northwest Ext.
64506
Saferstein, Mrs. T. H., 2903 Sherman 64504
Senne, Mrs. Herbert C., 1308 S. Noyes
64507
Senor, Mrs. Earl, 2920 Renick 64507
Sheppard, Mrs. Julius K., 1103 N. 49th Terr.
64506
Shevlin, Mrs. Charles F., 840 N. 25th 64506
Silliman, Mrs. York E., 2715 Francis 64501
Sklennar, Mrs. Donald E., 3910 N. 71
Highway 64506
Smith, Mrs. Clifton, 2821 Ashland 64506
Stallard, Mrs. Donald J., 1417 N. 25th
64506
Stevens, Mrs. Edward, 2923 Joslin La.
64506
Stuber, Mrs. Robert R., 4208 Miller Rd.
64505
Sweiger, Mrs. James, Rt. 3, Box 163, Platts-
burg 64477
Thomas, Mrs. Forrest, 1301 N. 25th 64506
Thompson, Mrs. F. Gregg, III, 2714 Ashland
64506
Tobin, Mrs. Robt. F., 3110 N. 36th Terr.
64506
Valera-Sanchez, Mrs. Salvador, 3202 Floral
Ave. 64506

Villahermosa, Mrs. Juanito, 511 Crestview Dr., Savannah 64485
Wadlow, Mrs. Ernest E., 2611 Lovers La. 64506
Waggoner, Mrs. Sharon E., 5820 S. 3rd 64504
Walker, Mrs. Larry G., 42 Stonecrest 64506
Weed, Mrs. Randall W., 1821 Clay 64501
Whitsell, Mrs. Ora Earl, 2306 Sacramento 64507
Willman, Mrs. Charles, 2105 Lovers La. 64505
Young, Mrs. Thomas J., 2300 N.E. Parkway 64506

BUTLER-RIPLEY-WAYNE-CARTER COUNTIES
(Poplar Bluff 63901)

Barbour, Mrs. Marvin R., Rt. 1
Brookreson, Mrs. A. Davis, 1500 Lurlyn Rd.
Brookreson, Mrs. A. F., 217 Oak
Caldwell, Mrs. Fred, 2008 King Rd.
Carlson, Mrs. E. C., 1260 Barron Rd.
Christy, Mrs. John, 1708 Sylvan Dr.
Englehardt, Mrs. Robert C., 1513 Rosendale La.
Fraser, Mrs. R. A., 1337 Meadow La.
Hansbrough, Mrs. Eugene T., Lurlyn Rd.
Hecker, Mrs. Joseph E., 2019 Woodhaven
Hoja, Mrs. W. Alexander, Rt. 7, Box 273
Hunt, Mrs. John, 3600 Wilcox
Kelley, Mrs. Kenneth H., 2036 King Rd.
Laatsch, Mrs. Robert H., 13333 Meadow La.
Ladyman, Mrs. George H., 1403 Lurlyn
Macaulay, Mrs. B. J., P.O. Box 238, Doniphan 63935
McLane, Mrs. Jerry F., 2107 Jackson Rd.
Miller, Mrs. David V., Rt. 7, Box 427
Parker, Mrs. Arthur C., Jr., 708 Selma
Ramirez, Mrs. Ricardo, 2022 King Rd.
Reddy, Mrs. A. N., 2133 Sunset
Reddy, Mrs. S. K., 2630 N. 14th
Robertson, Mrs. William D., 900 North
Ruff, Mrs. T. Eugene, 1411 Rosedale
Stubblefield, Mrs. Calvin F., V.A. Hospital
Tapp, Mrs. Ernest, 1401 Lurlyn Rd.
Till, Mrs. Bennie, 2806 Shady Lane
Tinsley, Mrs. Austin R., Rt. 1, Williamsville 63967
Traxel, Mrs. William L., 2624 Valley Crest
Tuma, Mrs. A. T., 1601 Big Bend Rd.
Turner, Mrs. Kirby, Rt. 2, Box 359-A
White, Mrs. Barry B., 2521 Park Pl.
Wood, Mrs. Tom, 2008 Schweitzer Dr.

CALLAWAY COUNTY
(Fulton 65251)

Brown, Mrs. John J., 1304 N. Vine
Cremer, Mrs. William J., State Hospital Dr.
Durst, Mrs. Henry, 1 Ivy La.
Groce, Mrs. George, 1 Bartley La.
Jackson, Mrs. Vernon, State Hospital
Osborn, Mrs. Richard A., 803 Bradley La.
Peterson, Mrs. Donald, Country Club Estates
Ritterbusch, Mrs. James K., 2 Bartley La.
Williams, Mrs. Paul, 403 Douglas Ave.
Wood, Mrs. George F., 1700 Plaza Dr.

CAPE GIRARDEAU COUNTY
(Cape Girardeau 63701)

Alyea, Mrs. James, 1869 Drury La.
Barnes, Mrs. Seth S., 1854 Broadway
Blankenship, Mrs. Dale, 1420 Sylvan La.
Bowman, Mrs. Kirk, 1965 Robinhood Circle
Burford, Mrs. Edwin K., 2424 Terry Hill
Campbell, Mrs. Edward, 1100 N. Henderson
Chapman, Mrs. Jean Allen, 1703 W. Cape Rock Dr.
Coulson, Mrs. Forest H., 1030 N. Henderson
Cozean, Mrs. Charles, 1548 Oak Lei
Crowe, Mrs. John, 1000 N. Henderson
Dinkins, Mrs. James, 1235 Sailer Circle
Downey, Mrs. Patrick, 3218 Kage Hills Dr.
Dzur, Mrs. James, #2 Schonhoff La.
Edwards, Mrs. Don, 2530 Jonquil La.
Eller, Mrs. Gordon W., Rt. 2 Box 534C, Twin Lakes
Elrod, Mrs. Dennis B., 2500 Fairlane
Essmeyer, Mrs. Joe, Rt. 2, Box 533A
Herbert, Mrs. Charles, 648 Sylvan La.
Holcomb, Mrs. John K., Rt. 1
Horn, Mrs. Paul, 1909 Huntington
Hunt, Mrs. Robert S., 5 Bienville
Johnson, Mrs. Earl Wayne, 1044 N. Henderson
Johnson, Mrs. E. D. Jack, 11 Dunmaine
Jones, Mrs. David, Box 127
Jung, Mrs. Christopher, Rt. 2, Twin Lakes
Jung, Mrs. Marshall, Box 427, Illmo (Mo.) 63754

Kasten, Mrs. Melvin C., 1209 Sailor Circle
Kinder, Mrs. James, Rt. 1, Box 135
Kinder, Mrs. Jerry L., 2426 Brookwood
Koldys, Mrs. Kenneth, 2460 Fairview
Kratz, Mrs. Paul, 1720 Cecilia
Lovinggood, Mrs. Thomas, 2505 Allendale Dr.
Magaletta, Mrs. George, 957 Rodney Dr.
McDonald, Mrs. Eugene, 225 W. Main
McGinty, Mrs. Charles, 2819 Gordonville Rd.
Nunnally, Mrs. Gordon, 1432 Themis
Oehler, Mrs. William, 1001 N. Henderson
Otto, Mrs. Thomas, 511 Alta Vista
Parsons, Mrs. D. L., Chateau Oaks
Rapp, Mrs. Harold, 1011 N. Henderson
Rawlins, Mrs. Fred, 1607 Bertling
Ridings, Mrs. Harold, 6 Sylvan La.
Ritter, Mrs. Carl, 1257 Rockwood
Ritter, Mrs. C. J., 2028 Concord
Ritter, Mrs. Raymond A., Jr., 2408 Terry Hill
Ritter, Mrs. Raymond A., Sr., 2542 Alledale Dr.
Roberts, Mrs. Perry, 1922 Sherwood
Seabaugh, Mrs. Loy, 811 E. Rodney
Shoss, Mrs. Milton, 1222 W. Cape Rock Dr.
Sides, Mrs. Stanley, 2014 Beth Dr.
Sparkman, Mrs. Thomas, 1629 Oxford Dr.
Spence, Mrs. Paul, 2530 Timber La.
Stewart, Mrs. Wendell, 2550 Allendale
Talbert, Mrs. Clifford R., 2747 Jewel Dr.
Terry, Mrs. James W., 2122 Woodhaven
Tygett, Mrs. Joe, 2112 Woodhaven
Weeks, Mrs. George, P.O. Box 1812
Wilson, Mrs. Charles, Oak Lei Dr.
Wolff, Mrs. Paul, 90 E. Cape Rock Dr.

CLAY COUNTY
(Kansas City)

Adams, Mrs. Howard, 1905 Snow Drop Circle, Liberty 64068
Allan, Mrs. James, 1015 Forest La., Liberty 64068
Allen, Mrs. Louis, 501 S. Woodland Dr. 64118
Armstrong, Mrs. Jay H., 4812 Black Swan Dr., Shawnee Mission Ks. 66216
Arst, Mrs. Herbert E., 1201 N.E. 81st 64118
Balhuizen, Mrs. John, 600 N.W. 42nd Terr. 64116
Bates, Mrs. G. Comer, 102 N.E. 43rd 64116
Benson, Mrs. Larry E., 3600 Appletree La. 64119
Boone, Mrs. Daniel C., 5800 N. Grand 64116
Bowles, Mrs. Richard, 414 N. Ridge, Liberty 64068
Burk, Mrs. E. K., 630 N.W. 42nd Terr. 64116
Castillo, Mrs. Michael E., 530 N.W. 43rd Terr. 64116
Chastain, Mrs. Maurice W., 3 N.E. 47th 64116
Chatkupt, Mrs. Suthon, 1001 Miss Belle, Excelsior Springs 64024
Chiles, Mrs. David R., 405 Maple, Smithville 64089
Del Muro, Mrs. F., 5902 Poplar Dr. 64118
Denton, Mrs. Robert, 716 Manzozola, Smithville 64089
Dernoncourt, Mrs. John, 603 Quincy, Smithville 64089
Devine, Mrs. Mark W., 6910 Overhill Rd., Shawnee Mission, Kan. 66208
Dolan, Mrs. C. Terrance, Rt. 2, Smithville 64089
Dy-Ragos, Mrs. Ramon R., 5432 N.W. 70th 64151
Edwards, Mrs. Theodore F., 512 N.W. 43rd Terr. 64116
Fakhoury, Mrs. Donald A., 4332 N. Central 64116
Flanders, Mrs. Virgil E., 2022 W. 91st, Leawood, Kan. 66206
Fotopoulos, Mrs. Chris K., 2917 Cheyenne Circle, No. Kansas City 64116
Fowler, Mrs. I. Charles, 700 E. Barnes Ave. 64118
Gauer, Mrs. Robert J., 525 N.W. 43rd Terr. 64116
Hagan, Mrs. John C., 3205 Shady Lane Dr. 64119
Haley, Mrs. Ted M., 4121 N. Briarcliff Rd. 64116
Hayes, Mrs. Lawrence L., 440 N. Woodland Dr. 64118
Hedges, Mrs. Richard C., 1017 Southwind Dr., Excelsior Springs 64024
Henry, Mrs. Joseph E., 5712 Buena Vista, Shawnee Mission, Kan. 66205
Hodge, Mrs. Robert H., 2204 N.E. 39th 64116

Kirkland, Mrs. Jerry, 6604 N.W. Overland Dr. 64151
Kuenzi, Mrs. Donald E., 924 S. Woodland Dr. 64118
Lanning, Mrs. R. James, 3801 N. Central 64116
Latimer, Mrs. Walter N. A., 4915 N. Kansas 64119
Lila, Mrs. Aram, 1001 Miss Belle, Excelsior Springs 64024
Littlejohn, Mrs. Robert, 5215 W. 63rd Terr., Shawnee Mission, Kan. 66208
Luechefeld, Mrs. Frank, 5905 N. Mersington 64119
McCluggage, Mrs. Newt C., 6624 Woodson Dr., Mission, Kan. 66202
McCormick, Mrs. James E., 309 Northcrest Dr. 64116
McPhee, Mrs. William R., 1205 W. 76th 64114
Mullins, Mrs. Bernard, 510 N.W. 106th 64155
Nourbakhsh, Mrs. Mahmoud, Box 839, Platte City 64079
Parker, Mrs. Robert H., 5204 N.W. 82nd Terr. 64151
Patterson, Mrs. Carroll D., 626 N.W. 42nd Terr. 64116
Perico, Mrs. Carlos, 8729 Rosewood, Prairie Village, Kan. 66207
Pileggi, Mrs. Felix A., 424 N.W. Briarcliff Rd. 64116
Reeder, Mrs. Charles C., 3 Maple Circle, Smithville 64089
Revare, Mrs. Paul, 3245 Chippewa Dr. 64116
Robinson, Mrs. Van M., 415 N.W. Briarcliff Ct. 64116
Schertz, Mrs. Truman, 428 N.W. Briarcliff Rd. 64116
Schultz, Mrs. Robert, 1532 N. Withers Rd., Liberty 64068
Schutz, Mrs. John P., 304 Virginia, Excelsior Springs 64024
Slaughter, Mrs. Carl, 1001 N. Woodland 64118
Smith, Mrs. Charles H., 6203 Circle Dr. 64118
Somoza, Mrs. Jose, 15 N.E. Hill 64116
Soper, Mrs. William, 1006 Forest La., Liberty 64068
Spelman, Mrs. Arch E., 500 N. Bridge, Smithville 64089
Sportsman, Mrs. Weldon L., Rt. 2, Smithville 64089
Stratman, Mrs. Clarence A., 405 N.W. 53rd 64118
Thomas, Mrs. Anthony, 940 N. Woodland Dr. 64118
Triplett, Mrs. Daniel A., 936 Scott Dr., Liberty 64068
Tumanut, Benesto, 3814 N.W. 60th 64151
Underwood, Mrs. J., III, 4222 N. Grand 64116
Vilmer, Mrs. Charles E., 6209 W. 65th, Shawnee Mission, Kan. 66202
Wald, Mrs. Donald, 1608 N.E. 69th 64118
Waltz, Mrs. Charles A., 1010 N. Woodland Dr. 64118
Waterman, Mrs. Franklin M., 420 Glendale Rd., Liberty 64068
Weide, Mrs. Allan, 4705 N.W. 81st Terr. 64151
Werner, Mrs. Dean F., 4609 N. Main 64116
Werner, Mrs. Franklin C., 422 Sagamore La. 64116
Williams, Mrs. R. D., 6533 Rainbow, Shawnee Mission, Kan. 66208
Wilson, Mrs. David E., 1105 N.E. 82nd 64118
Withrow, Mrs. John B., 3925 N. Main 64116
Workman, Mrs. Charles E., 6609 Milhaven Dr., Shawnee Mission, Kan. 66202
Wright, Mrs. Earl, 5213 N.W. 82nd Terr. 64151

COLE COUNTY
(Jefferson City 65101)

Beldon, Mrs. E. A., 2124 Lowell
Bohrer, Mrs. Lois, 204 A Brookdale
Bowe, Mrs. Ted, 2503 Shellridge Dr.
Bregant, Mrs. Robert, 3435 Country Club Dr.
Busby, Mrs. William E., 523 Mesa
Cooper, Mrs. Charles W., 508 E. Miller
Courter, Mrs. Larry, Rt. 4
Cox, Mrs. William A., 812 Swifts Highway
Davisson, Mrs. Walter F., Star Rt. 1, Schott Rd.
Doerhoff, Mrs. Alan, Shepherd Hills
Dorris, Mrs. Richard P., 1611 Ridgewood
Enloe, Mrs. L. David, 1200 Moreland
Exon, Mrs. C. Stuart, 916 Boonville

Files, Mrs. James, 330 Sterling Price Rd.
Fullgrabe, Mrs. Emil A., 1914 Green
Meadow Dr.
Garner, Mrs. Lynn M., 403 Meier Dr.
Garner, Mrs. Royal, Holts Summit, 65043
Giffen, Mrs. Lawrence E., 1915 Hayseton
Dr.
Gordon, Mrs. James, 600 Boonville Rd.
Gove, Mrs. Herman S., 712 Broadway
Guhleman, Mrs. Henry V., Jr., 2018
Greenberry Rd.
Gurnee, Mrs. Landon H., 2941 Country Club
Dr.
Handler, Mrs. Fred P., 614 Boonville Rd.
Hauser, Mrs. Robert J., Schott Rd.
Kanagawa, Mrs. Harold Hajime, 816
Houchin
Kanagawa, Mrs. Harold K., 314 Crest Dr.
Kelly, Mrs. Marshall W., 1916 Greenberry
Rd.
Klebba, Mrs. Larry B., 3300 Country Club
Dr.
Leslie, Mrs. James T., Jr., 1824 Brookside
Blvd.
Lloyd, Mrs. Earl L., Riviera Heights, Holts
Summit 65043
Matthews, Mrs. John I., 1314 Moreau Dr.
McHaney, Mrs. John W., 1819 Brookside
McKnelly, Mrs. William V., 1106 Lee
Meier, Mrs. Francis X., 1913 Hayseton Dr.
Meinershagen, Mrs. Charles W., 138 Forest
Hill
Ossman, Mrs. Julian A., 2407 W. Main
Robb, Mrs. Harold P., 1117 Leslie Blvd.
Russell, Mrs. Joseph P., 1717 Greenberry
Rd.
Ryan, Mrs. Thomas J., 1109 Moreau Dr.
Sanders, Mrs. Jack Shelby, 1826 Brookside
Blvd.
Schmidt, Mrs. Jerome H., 806 Boonville
Schokker, Mrs. Johannes, 3463 Hobbs La.
Scott, Mrs. David, 957 Westwood
Sennott, Mrs. John Stephen, 706 Earl Lee
Shull, Mrs. G. Donald, 1925 Hayseton Dr.
Siu, Mrs. Kenneth C., 1009 Fairmount Blvd.
Stauffer, Mrs. Harry Beach, 830 Boonville
Rd.
Stauffer, Mrs. Larry K., 2510 Screllridge
Stricker, Mrs. Harold C., Rt. 5, Zion Rd.
Su, Mrs. Philo S., 311 Elm Tree Dr.
Sugarbaker, Mrs. Everett D., 2113 W. Main
Summers, Mrs. Joseph S., Jr., 2312 W. Main
Tanner, Mrs. Robert H., 1910 Greenberry
Rd.
Taylor, Mrs. Leon A., 1104 W. Main
Tietjen, Mrs. Fred C., 7 Greentree Rd.
Van Vranken, Mrs. Eugene E., 2037 Tower
Dr.
Wallace, Mrs. John K., 220 Ridgeway
Watts, Mrs. Byron Edward, 2112 Forest Dr.
Werth, Mrs. Joseph A., 325 Old Gibler Rd.
Westhoff, Mrs. D. Douglas, 2616 Schellridge
Rd.

COOPER COUNTY (Boonville 65233)

Abele, Mrs. William A., Krohn Dr.
Avery, Mrs. Willard B., 10 Oak Valley Rd.
Diekroeger, Mrs. Manuel L., Rt. 2
Hata, Mrs. Daikichi, 7 Morningside Dr.
Humphreys, Mrs. Edward T., 1123 Third St.
Stuart, Mrs. Byron M., 910 Shamrock Terr.
Winn, Mrs. George W., 607 Poplar

DUNKLIN COUNTY (Kennett 63857)

Benson, Mrs. Leo J., Jr., 204 Wiggs
Cash, Mrs. Charles R., 1112 White Oak Pl.
Croom, Mrs. D. W., Stokes Blvd., Malden
63863
English, Mrs. W. D., Cardwell 63829
Huang, Mrs. J. S., 1932 Preston
Legan, Mrs. John K., 617 Butler Dr.
Miltenberger, Mrs. Paul C., 705
W. Washington
Morehead, Mrs. William E., 505 N.
Beckwith, Malden 63863
Palenske, Mrs. R. L., Hornersville 63855
Pu, Mrs. Pin H., 1105 W. Eighth
Rigdon, Mrs. John
Soonattrakal, Mrs. Withiska
Tarver, Mrs. Quinton, 1004 W. Washington
Wilson, Mrs. L. C., 915 S. Jackson
Zimmerman, Mrs. Joe A., 1105 White Oak
Pl.

FRANKLIN-GASCONADE-WARREN COUNTIES

Baker, Mrs. Donald, 900 Clearview Dr.,
Union 63084
Bonney, Mrs. Samuel C., 2 Southpoint Pl.,
Washington 63090
Bozzo, Mrs. Raymond J., 6 Catawba Pl.,
Washington 63090

Brenner, Mrs. Paul A., 108 W. Washington,
Owensville 65066
Eisenmann, Mrs. Benjamin B., New Haven
63068
Farrell, Mrs. S. L., 205 Elm, Washington
63090
Hoelscher, Mrs. H. F., Hickory Haven,
Warrenton 63383
Moellenhoff, Mrs. Robert, 2315 E. Fifth,
Washington 63090
Muench, Mrs. Ludwig O., 1530 Riverview
Dr., Washington 63090
Richardson, Mrs. G. A., 1 East Lane, Union
63084
Richardson, Mrs. W. R., 301 Hwy. 50 West,
Union 63084
Schmidt, Mrs. Charles, Box 143, Gerald
63067
Strehlman, Mrs. Benjamin G., 510 West End
Union 63084

GRAND RIVER COUNTIES (Caldwell, Carroll, Livingston, Grundy Davies, Harrison, Linn, Mercer & DeKalb Counties)

Allen, Mrs. E. W., 1202 N. Jefferson,
Carrollton 64633
Bales, Mrs. Eugene, 502 W. Third Terr.,
Carrollton 64633
Bohnsack, Mrs. Ralph, 635 Skyline Dr.
Brookfield 64628
Broyles, Mrs. Watkins, Bethany 64424
Cofer, Mrs. Thomas N., 503 Elmdale,
Chillicothe 64601
Conrad, Mrs. Joseph, 1202 Jackson,
Chillicothe 64601
Cross, Mrs. Albert, 1903 Moberly Rd.,
Trenton 64683
Daley, Mrs. Frank, 508 E. Samuel,
Hamilton 64644
Dixon, Mrs. John, 1005 Brookfield,
Brookfield 64628
Dowell, Mrs. Donald, 1830 Calhoun,
Chillicothe 64601
Ellsworth, Mrs. Willard, Cainsville 64632
Fair, Mrs. William, 1705 Calhoun,
Chillicothe 64601
Gale, Mrs. Joseph, 1710 Polk, Chillicothe
64601
Galvez, Mrs. Sisenando P., Santa Fe,
Marceline 64658
Gearhart, Mrs. Merriam, 2100 Beekman,
Bethany 64424
Howell, Mrs. Billy, Rt. 1, St. Catherine
64677
Mandler, Mrs. George, 1616 Clay,
Chillicothe 64601
Platz, Mrs. John, 804 N. Main, Carrollton
64633
Rose, Mrs. John F., 1024 Grandview,
Chillicothe 64601
Smith, Mrs. Robert W., Country Club,
Brookfield 64628
Trinidad, Mrs. Hermanito, 1324 Dorney Dr.,
Chillicothe 64601
Vandiver, Mrs. V. D., Rt. 2, Chillicothe
64601
Yoon, Mrs. Jin S., 1424 Vine, Chillicothe
64601

GREENE COUNTY (Springfield)

Allen, Mrs. Jerry H., 1324 S. Fairway Terr.
65804
Allison, Mrs. James B., 2507 S. Luster
65804
Ancheta, Mrs. Apolinario, 1417 E. Hanover,
65804
Anthony, Mrs. Dallas D., 1322 S. Pickwick,
65804
Ash, Mrs. Charles J., 743 Riverside 65807
Ashley, Mrs. Thomas E., 2740 Pythian
65802
Atkinson, Mrs. Thomas E., Anchor Hill
Ranch, Rt. 1, Rogersville 65742
Auner, Mrs. Cecil R., 649 McCann 65804
Back, Mrs. Donald K., 2852 S. Glendale
65804
Baldwin, Mrs. Richard M., 2033 Prairie La.
65804
Barnhill, Mrs. Floyd, 3215 Bellhurst 65804
Beisner, Mrs. Don, 1512 Charing Rd. 65804
Benson, Mrs. Ronald, 4372 Valley Dr.
65804
Berry, Mrs. Paul T., 2135 Shady Glen 65804
Blades, Mrs. Ross, 2308 Baratara 65804
Bonebrake, Mrs. McDonald D., 1443 S.
Delaware 65804
Boone, Mrs. Martin, Rt. 2, Box 315 65802
Borja, Mrs. E. R., 2912 S. Brentmoor 65804
Brent, Mrs. Lanny, 4430 S. Pratt 65804
Brian, Mrs. Wm., Jr., 2258 Baratara 65804

Broadus, Mrs. Loren, 2409 E. Rosebrier
65804
Brown, Mrs. David, 2727 Melbourne Rd.
65804
Brown, Mrs. Lyman, 1410 N. Rogers 65802
Burkey, Mrs. Jordan W., 2405 Sheridan
65804
Busiek, Mrs. Urban J., 1635 E. Walnut
65802
Callaway, Mrs. Guy, 901 E. Portland 65804
Carr, Mrs. Phillip, 1260 E. Catalpa, 65804
Cheek, Mrs. Anne C., 1535 E. Meadowmere
65804
Cheek, Mrs. James W., 2342 Fritts La.
65804
Christy, Mrs. Raymond, Jr., 2738 S. Marlan
65804
Ciccione, Mrs. Pasquale, U. S. Medical
Center 65804
Clarke, Mrs. Michael, Rt. 1, Box 422-A
65803
Clarke, Mrs. Michael S., 2240 S. Lone Pine
65804
Clary, Mrs. William, 2224 Edgewater 65804
Clayton, Mrs. E. L., 2446 Brentwood Blvd.
65804
Cochran, Mrs. Thomas E., 2423 Brentwood
Blvd. 65804
Coller, Mrs. Frederick C., 2433 S. Marlan
65804
Conrad, Mrs. R. C., 1338 S. Delaware
65804
Cordonnier, Mrs. James K., 2320 E.
Rosebrier
Corry, Mrs. Francis, 2859 Utica 65804
Coulter, Mrs. James W., 2134 Shady Glen
65804
Cox, Miss Eleanor, 1072 Roanoke 65804
Crawford, Mrs. Oral, Rt. 1, Box 443 65803
Danielsson, Mrs. Ernest P., 3324 E. Redbud
La. 65807
Dillard, Mrs. Erin M., 2130 S.W. Pleasant
Valley Rd. 65804
Dolan, Mrs. Daniel L., 2413 Claremont
65804
Domann, Mrs. Darrel, 4305 Ridgeview Rd.
65804
Duncan, Mrs. Robert D., 1234 E. Loren
65804
Ellis, Mrs. Francis J., 2235 E. Glenwood
65804
Ellis, Mrs. Harry L., 2375 E. Rosebrier
65804
Evans, Mrs. E. L., 2457 E. Baratara 65804
Farthing, Mrs. Gene W., 1235 E. Walnut
65802
Ferguson, Mrs. John P., 1219 S. Clay 65804
Fessenden, Mrs. Ersel M., 634 E. Kingsbury
65804
Fitch, Mrs. Max, Rt. 1, Box 285, Brighton
65617
Fogle, Mrs. Phillip, 2140 S. Meadowview
65804
Francis, Mrs. William C., 2820 E. Glenwood
65804
Freeman, Mrs. S. F., 1339 S. Pickwick
65804
Gaska, Mrs. Walter, 2503 Collinson 65804
Gentry, Mrs. Michael A., 2151 E. Rosebrier
65804
Gerdes, Mrs. John, 3041 Lamonta 65804
German, Mrs. Walter A., 2971 Southern
Hills Blvd. 65804
Giddings, Mrs. Frank C., 1211 S. Pickwick
65804
Giffin, Mrs. James, Rt. 2, Box 91 65802
Gill, Mrs. Paul J., 2712 S. Hillsboro 65804
Glynn, Mrs. Robert, 1101 Benton 65802
Gorelick, Mrs. David F., 1041 Linwood
Terr. 65807
Gose, Mrs. Don F., 1339 S. Delaware 65804
Gwin, Mrs. Edward, 1010 E. Elm, Apt. 11
65806
Hall, Mrs. David, Rt. 2, Rogersville 65742
Hall, Mrs. Durward G., 2442 S. Fremont
65804
Hamburg, Mrs. Fredrick, 2757 E. Normandy
65804
Hanan, Mrs. E. B., 724 E. Kingsbury 65807
Harmon, Mrs. Ben C., Rt. 1, Nixa 65714
Harrison, Mrs. S. W., Rt. 9, Box 122 65804
Harvey, Mrs. Harold D., 2531 Brentwood
65804
H'Doubler, Mrs. Alice, Rt. 7, Box 207
65802
H'Doubler, Mrs. F. T., Jr., 2445 Melbourne
Rd. 65804
H'Doubler, Mrs. Peter B., 1137 S. Pickwick
65804
Herfkens, Mrs. Kenneth, 2818 Natural
Bridge 65804
Hills, Mrs. Joe E., 2917 Natural Bridge
65804

Hinds, Mrs. Paul A., Rt. 5, Box 532 65803
Holland, Mrs. Robert, 2225 E. Edgewood 65804
Hollis, Mrs. Richard, 2236 S. Inglewood 65804
Holmes, Mrs. Daniel E., Rt. 9, 4318 Sunset 65804
Holmes, Mrs. David R., 2539 Melbourne Rd. 65804
Huewe, Mrs. Douglas H., 2204 Claiborne 65804
Jameson, Mrs. James E., 2412 S. Marlan 65804
Jobe, Mrs. Charles, 2415 E. Edgewood 65804
Johnson, Mrs. Fritz, 2435 E. Cambridge 65804
Johnson, Mrs. George, 2349 Edgewood 65804
Johnson, Mrs. George L., 2855 S. Barnes 65804
Johnson, Mrs. Joe C., 2240 Cherryvale 65804
Johnson, Mrs. Warford, 2244 Edgewood 65804
Johnson, Mrs. William F., 973 E. Linwood Dr. 65807
Johnston, Mrs. Joseph L., 2855 Southern Hills 65804
Jones, Mrs. Harold L., 3042 Ridge Dr. 65804
Key, Mrs. James S., 2278 Inglewood 65804
Kipfer, Mrs. Robert, 4328 S. Pratt 65804
Klingner, Mrs. George M., Turners 65765
Klingner, Mrs. George M., Jr., Rt. 3, Box 202, Rogersville 65742
Knabb, Mrs. Kenneth E., 1229 E. Catalpa 65804
Kobberman, Mrs. Kobby J., 3352 S. Southlyn Pl. 65804
Kolze, Mrs. Vernon, 2519 S. Marlan 65804
Krahn, Mrs. Henry, 1415 Essex 65804
Langston, Mrs. W. Roland, 1453 S. Fairway 65804
LeFevre, Mrs. Philip, 2851 E. Covington Circle 65804
Lemmon, Mrs. G. Bruce, 1462 Virginia 65807
Lewis, Mrs. Noel R., Rt. 1, Strafford 65757
Litton, Mrs. Lyle, 3044 Shalimar 65804
Lockhart, Mrs. Charles E., 1600 E. Catalpa 65804
Loeb, Mrs. Richard, 4133 E. Ridge Dr. 65804
Lorenc, Mrs. Ernest, 2819 Canyon Dr. 65804
Lowe, Mrs. Arch, 1700 E. Walnut 65802
Lundman, Mrs. Hugh L., 3740 E. Linwood Dr. 65804
Luzacky, Mrs. Michael H., 1903 E. Shamrock 65804
Maddux, Mrs. William, 2634 Inglewood Rd. 65804
Maple, Mrs. Francis M., 2115 Edgewood 65804
Maples, Mrs. Ruth, 885 S. Salt Pond, Apt. 1A, Marshall 65340
McAlhany, Mrs. Howard J., 1643 E. Catalpa 65804
McCrea, Mrs. Wm. A., Rt. 1, Box 15A, Republic 65738
McKinsey, Mrs. John, 2802 Natural Bridge 65804
McLaughlin, Mrs. Richard, 2249 Wildwood Circle 65804
Menchetti, Mrs. Don E., Rt. 9, Box 425A 65804
Mentgen, Mrs. Carl, 5759 Wildwood Circle-S Dr. 65804
Michael, Mrs. Harvey R., 2838 Canyon Dr. 65804
Moore, Mrs. DeArmand, 2306 S. Meadowview 65804
Moseley, Mrs. F. Thomas, 2837 Lomita Circle 65804
Neu, Mrs. Leo T., 3008 Carlisle Circle 65804
Olson, Mrs. E. Rule, 2645 Wildwood Rd. 65804
Palcheff, Mrs. Chris L., Rt. 9, Box 400L 65804
Park, Mrs. William I., 815 E. Portland 65804
Penninger, Mrs. William H., 2246 Claiborne 65804
Peterson, Mrs. Stanley S., 721 E. Stanford 65807
Powell, Mrs. Edwin, 1226 S. Weller 65804
Prater, Mrs. Bill George, 3000 Carlisle Circle 65804
Pruett, Mrs. Paul L., 2000 S.W. Pleasant Valley Rd. 65804
Quinn, Mrs. Paul, 2857 Chantilly 65804

Raborar, Mrs. Arteso C., 5650 Woodcliff Dr. 65804
Salas, Mrs. Rene A., 807 S. Jefferson, Apt. D 65806
Sammon, Mrs. T. James, 1526 S. Devon 65804
Schaeffer, Mrs. Edward, 2356 Wildwood Circle 65804
Schreiber, Mrs. Norman, 3754 E. Cherry 65804
Schroff, Mrs. Carle H., 2448 E. Broadmoor 65804
Schwartz, Mrs. Eugene J., 1315 E. Loren 65804
Schweitzer, Mrs. Fred C., 2550 S. Luster 65804
Shackter, Mrs. Bruce, 1538 Essex 65804
Shane, Mrs. Ramon, 2910 Wildwood Rd. 65804
Shelton, Mrs. R. Wayne, 1314 Woodgate 65804
Siceluff, Mrs. Joseph G., 609 Cherry 65806
Silshy, Mrs. Don J., 800 E. Brookside 65807
Simpson, Mrs. E. L., 2133 Meadowview 65804
Snead, Mrs. William H., 2532 Sheridan 65804
Sporenberg, Mrs. Don, 2905 Versailles 65804
Stamatis, Mrs. John J., 2875 S. Rochelle 65804
Stewart, Mrs. Robert B., 2360 E. Grand 65804
Stufflebaum, Mrs. Robert E., 2323 E. Rosehriar
Sturtevant, Mrs. Harwood N., Rt. 9, El Dorado Rd. 65804
Sullivan, Mrs. Dan T., 2241 Cherryvale 65804
Sundstrom, Mrs. Frank D., Rt. 1, Ozark 65721
Suva, Mrs. Morfeo M., 1915 E. Swallow 65804
Sweeney, Mrs. Thomas, Rt. 1, Nixa 65714
Tarrasch, Mrs. Ernest, 2114 Langston 65804
Tendai, Mrs. Mark M., 2244 Edgewater 65804
Terry, Mrs. James F., Jr., 2830 Chambery 65804
Thomasson, Mrs. David D., 2311 E. Glenwood 65804
Tillman, Mrs. Walter, 1220 E. Loren 65804
Tombridge, Mrs. T. L., 2830 S. Marlan 65804
Trotter, Mrs. W. Yates, 1243 E. Catalpa 65804
Tsang, Mrs. John, 3514 E. Cherry 65804
Turner, Mrs. Glenn O., 1462 S. Dollison 45804
Upshaw, Mrs. Paul, 2118 S. Fairway 65804
Vensel, Mrs. Lee H., Jr., 2255 Meadowview 65804
Waddell, Mrs. Kenneth, 1126 S. Kentwood 65804
Wakeman, Mrs. J. Newton, 1402 Meadowmere 65804
Wakeman, Mrs. J. Newton, Jr., 2251 E. Washita 65804
Walker, Mrs. William M., 2845 Southern Hills Bld. 65804
Warres, Mrs. Herbert L., 2614 Englewood Rd. 65804
Waterfield, Mrs. Jim, 2565 Sheridan Blvd. 65804
Webb, Mrs. Richard, 1243 E. Loren 65804
Whitlock, Mrs. Courtney C., 1340 S. Delaware 65804
Wilson, Mrs. Roy E., Rt. 1, Box 210-A, Rogersville 65742
Wise, Mrs. Gordon F., 2850 Southern Hills 65804
Wittmer, Mrs. Samuel C., 2314 E. Washita 65804
Wolf, Mrs. Marion L., 4303 E. Valley Rd. 65804
Wooldridge, Mrs. Wilfred E., 1126 E. Stanford 65807
Yancey, Mrs. Daniel L., 1133 S. Weller 65804

JACKSON COUNTY (Kansas City)

Abella, Mrs. Ben Z., 8967 E. 62nd Terr. 64133
Abend, Mrs. Melvin N., 1000 W. 69th 64113
Abercrombie, Mrs. Keith, 8100 El Monte, Shawnee Mission, Kan. 66208
Abrams, Mrs. Bernard M., 1021 W. 69th 64113

Adelman, Mrs. Arthur, 6305 Aberdeen, Shawnee Mission, Kan. 66208
Agee, Mrs. Loren Glenn, Rt. 1, Rantoul, Kan. 66079
Aks, Mrs. Daniel, 3100 W. 68th, Shawnee Mission, Kan. 66208
Alderman, Mrs. Donald, 3221 W. 83rd, Leawood, Kan. 66206
Alderman, Mrs. Thomas F., 309 E. 127th 64145
Ammatelli, Mrs. F. J., 1235 W. 57th Terr. 64113
Andrus, Mrs. Bailey C., 6508 Overbrook Rd., Shawnee Mission Kan. 66208
Arbab, Mrs. Ali A., 2415 W. 67th, Shawnee Mission, Kan. 66208
Arns, Mrs. Arnold V., 302 W. 99th Terr. 64114
Atcheson, Mrs. Bellfield, 2111 W. 70th Terr., Shawnee Mission, Kan. 66208
Atwell, Mrs. Floyd C., 630 W. 60th Terr. 64113
Badeen, Mrs. Louis, 3400 Shady Bend Dr., Independence 64052
Balanoff, Mrs. Arnold Z., 2500 W. 71st, Shawnee Mission, Kan. 66208
Ballard, Mrs. V. Bryce, 6618 Rainbow, Shawnee Mission, Kan. 66208
Barelli, Mrs. Pat A., 5609 Mission Dr., Shawnee Mission, Kan. 66208
Barloon, Mrs. James H., 2109 W. 70th, Shawnee Mission, Kan. 66208
Barnard, Mrs. John L., 825 W. 52nd 64112
Barr, Mrs. Glenn A., 9615 Grandview Rd. 64137
Barry, Mrs. John W., 5510 W. 84th, Shawnee Mission, Kan. 66207
Barry, Mrs. William B., Sulgrave Apts., 121 W. 48th 64112
Basantz, Mrs. F. Victor, 2025 W. 91st, Shawnee Mission, Kan. 66206
Battmer, Mrs. Robert E., 4964 Westwood Terr. 64112
Bauer, Mrs. Lafe W., 4818 W. 80th, Prairie Village, Kan. 66208
Beall, Mrs. M. S., 9029 High Dr., Shawnee Mission, Kan. 66206
Beatty, Mrs. Eugene C., 4923 W. 96th Terr., Shawnee Mission, Kan. 66207
Becker, Mrs. Rolphe A., 6501 Wenonga, Shawnee Mission, Kan. 66208
Beesley, Mrs. Charles V., 741 W. 121st 64145
Behrends, Mrs. Steven H., 11008 E. 72nd, Raytown 64133
Bell, Mrs. William F., 214 Oxford La., Lee's Summit 64063
Bennett, Mrs. J. D., 20806 Pebble La., Shawnee Mission, Kan. 66208
Benoit, Mrs. Hector W., 2501 W. 64th, Shawnee Mission, Kan. 66208
Benson, Mrs. William F., 1210 W. 58th 64113
Berenson, Mrs. Sheldon E., 832 W. 63rd 64113
Bickley, Mrs. James E., 3004 W. 83rd Terr., Leawood, Kan. 66206
Biery, Mrs. Richard
Biggs, Mrs. Alfred D., Jr., 6551 Wenonga Terr., Shawnee Mission, Kan. 66208
Bikales, Mrs. Victor W., 5810 High Dr., Shawnee Mission, Kan. 66208
Bishop, Mrs. Francis, 3208 W. 83rd Terr., Leawood, Kan. 66206
Black, Mrs. Eugene C., 3201 W. 67th, Shawnee Mission, Kan. 66208
Black, Mrs. Thomas C., 7929 Outlook, Shawnee Mission, Kan. 66208
Blim, Mrs. Richard Don, 2209 W. 68th, Shawnee Mission, Kan. 66208
Bohan, Mrs. Peter T., 4545 Wornall Rd. 64111
Borenstine, Mrs. Joseph, 7307 Holmes 64131
Borsuk, Mrs. Greogry M., 16525 E. 36th, Independence 64055
Bowser, Mrs. John F., 3701 Madison 64111
Boyd, Mrs. George K., 4810 W. 80th, Shawnee Mission, Kan. 66208
Boylan, Mrs. Peter C., 3308 W. 87th, Shawnee Mission, Kan. 66206
Brah, Mrs. Howard, 512 Linwood Terr., Independence 64050
Brams, Mrs. Jack B., 5050 Oak St. 64112
Braverman, Mrs. Abe Elliott, 2710 W. 68th, Shawnee Mission, Kan. 66208
Brick, Mrs. Jeffrey, 3012 W. 83rd Terrace, Shawnee Mission, Kan. 66206
Brower, Mrs. Clyde, 118 S. Willis, Independence 64050
Brown, Mrs. Adrian J., 12 E. 63rd 64113
Brown, Mrs. Elwyn S., 200 W. 115th 64114
Brown, Mrs. Menzie H., 9421 Ralston 64138

- Brown, Mrs. William R., 8717 Rosewood Dr., Shawnee Mission, Kan. 66207
 Brumm, Mrs. L. W., 7421 Wyoming 64114
 Buckner, Mrs. Robert C., 3507 W. 87th, Leawood, Kan. 66206
 Budke, Mrs. Harold A., 1219 W. 66th Terr. 64113
 Buhler, Mrs. Victor B., 5212 Bellview 64112
 Buie, Mrs. Bruce R., 4601 E. 110th 64137
 Bunting, Mrs. Williston P., 1231 W. 62nd 64113
 Caffrey, Mrs. Raymond J., 1314 W. Red Bridge Rd. 64114
 Calovich, Mrs. Emery, 3500 W. 49th, Shawnee Mission, Kan. 66205
 Camacho, Mrs. Homero, 10505 Wedd, Overland Park, Kan. 66212
 Campbell, Mrs. Frederick B., 1032 W. 55th 64113
 Campbell, Mrs. John, 429 W. 69th 64113
 Canent, Mrs. Ramon V., Jr., 2009 W. 120th Terr., Leawood, Kan. 66209
 Capps, Mrs. Eugene C., 7921 El Monte, Shawnee Mission, Kan. 66208
 Carder, Mrs. George A., 1011 Scott Dr., Liberty 64068
 Carlson, Mrs. Hjalmar E., 2709 W. 66th, Shawnee Mission, Kan. 66208
 Carmichael, Mrs. Francis A., 5841 High Dr., Shawnee Mission, Kan. 66208
 Cariso, Mrs. Alfred A., 2018 W. 70th Terr., Shawnee Mission, Kan. 66208
 Case, Mrs. William F., 4913 W. 97th, Shawnee Mission, Kan. 66207
 Casford, Mrs. Ralph, 1236 W. 72nd 64114
 Cattaneo, Mrs. Ernest A., 9200 Cherokee La., Shawnee Mission, Kan. 66206
 Centner, Mrs. Paul J., 4304 W. 66th, Shawnee Mission, Kan. 66208
 Chambers, Mrs. James Q., 5500 Belinder Ave., Shawnee Mission, Kan. 66205
 Chandler, Mrs. Robert A., 6435 Indian La., Shawnee Mission, Kan. 66208
 Chaudhuri, Mrs. Tepan K., 7816 Ridgeway 64138
 Childs, Mrs. Richard M., 5325 Mission Woods Terr., Shawnee Mission, Kan. 66205
 Chowdhury, Mrs. Dipak, 16812 Larkspur La., Independence 64055
 Chung, Mrs. Richard, 4406 North Lake, Lee's Summit 64063
 Clark, Mrs. Irving H., 2811 Blue Ridge Ext., Grandview 64030
 Cline, Mrs. Merle A., 6115 Karen Rd. 64151
 Cockerell, Mrs. Sanford F., 3051 S. Cryslar, Independence 64050
 Coffey, Mrs. Ralph R., 5211 Wornall Rd. 64112
 Ccleman, Mrs. Robert L., 5610 Aberdeen Rd., Shawnee Mission, Kan. 66205
 Colom, Mrs. George A., 4002 W. 56th, Shawnee Mission, Kan. 66205
 Conn, Mrs. Robert, 3725 W. 64th, Shawnee Mission, Kan. 66208
 Coppinger, Mrs. Thomas A., 8 E. 55th Terr. 64113
 Cotton, Mrs. Thomas R., 6908 Valley Rd. 64113
 Cowan, Mrs. George, Lake Quivira, Kansas City, Kan. 66106
 Crocker, Mrs. Albert, 7512 Crisp 64138
 Crouch, Mrs. Thomas T., 6800 W. 66th Terr., Shawnee Mission, Kan. 66202
 Crow, Mrs. Martin, 3011 W. 84th, Leawood, Kan. 66206
 Curran, Mrs. Desmond, 6626 Wenonga Terr., Prairie Village, Kan. 66208
 Curtis, Mrs. Calvin J., 5730 Metcalf Ct., Shawnee Mission, Kan. 66202
 Dale, Mrs. Darnell, 8317 Fontana, Prairie Village, Kan. 66207
 Dalton, Mrs. Timothy, 11841 Oak 64114
 Davis, Mrs. Donald R., 2501 W. 67th, Shawnee Mission, Kan. 66208
 Davis, Mrs. Herbert V., 4601 Holmes 64110
 Davis, Mrs. Jack M., 7110 Harecliff Dr. 64133
 DeFeo, Mrs. Theodore, 4100 W. 90th Terr., Shawnee Mission, Kan. 66207
 Demott, Mrs. John D., 4402 Homestead Dr., Prairie Village, Kan. 66208
 Dempsey, Mrs. Herbert A., 806 Chestnut, Lee's Summit 64063
 Dennie, Mrs. Charles C., 121 W. 48th 64112
 Dimond, Mrs. E. Grey, 5049 Wornall Rd. 64112
 Dixon, Mrs. George D., 10416 Mohawk La., Leawood, Kan. 66206
 Dixon, Mrs. V. L., 2501 W. Paseo 64108
 Dlabal, Mrs. L. J., 3729 Blue Ridge Blvd., Independence 64052
 Dodge, Mrs. Mark, 5820 State Line Rd., Shawnee Mission, Kan. 66208
 Dorsch, Mrs. E. H., 3807 Woodland, Independence 64052
 Downey, Mrs. James W., 6906 W. 52nd Pl., Shawnee Mission, Kan. 66202
 Drake, Mrs. Roy F., 6600 Outlook, Shawnee Mission, Kan. 66202
 Drisko, Mrs. Robert M., 2100 Stratford Rd., Shawnee Mission, Kan. 66208
 Dunleavy, Mrs. James D., 11330 Madison 64114
 Durie, Mrs. Robert H., 8446 Juniper La., Shawnee Mission, Kan. 66207
 Durnell, Mrs. Monaford D., 308 Lincolnwood, Lee's Summit 64063
 Earnest, Mrs. James B., 1250 W. 59th 64113
 Edmonds, Mrs. D. D., 9009 Mission Rd., Leawood, Kan. 66206
 Egea, Mrs. Fernando M., 9916 Perry Dr., Shawnee Mission, Kan. 66212
 Eiseemann, Mrs. Gustave, 6520 Overhill Rd., Shawnee Mission, Kan. 66208
 Elias, Mrs. David J., 22 E. Tapawingo, Blue Springs 64015
 Ellfeldt, Mrs. Howard, 8544 Roe Blvd., Prairie Village, Kan. 66207
 Elliott, Mrs. R. Glenn, 6136 Reinhardt Dr., Shawnee Mission, Kan. 66205
 Englemann, Mrs. Calvin E., 2000 W. 68th, Shawnee Mission, Kan. 66208
 Engleman, Mrs. Reinhold, 524 W. 119th Terr. 64145
 Ericsson, Mrs. Samuel E., 9800 Horton, Shawnee Mission, Kan. 66207
 Etzenhouser, Mrs. Merrill, 3318 Oxford, Apt. D, Independence 64052
 Etzenhouser, Mrs. Russell F., 1317 W. College, Independence 64052
 Eubank, Mrs. Dillard M., 6020 Elm 64133
 Eubank, Mrs. Will R., 6113 Lane 64133
 Eubank, Mrs. William Y., 1020 W. 60th Terr. 64113
 Euprasert, Mrs. Pricha, 6401 Dearborn Dr., Mission, Kan. 66202
 Evans, Mrs. Lawrence L., 1025 W. 64th Terr. 64113
 Fairchild, Mrs. Robert C., 8425 Reinhardt La., Leawood, Kan. 66206
 Farney, Mrs. Jacob P., 2712 W. 69th, Shawnee Mission, Kan. 66208
 Farnsworth, Mrs. Jesse J., 5608 Fairway, Shawnee Mission, Kan. 66205
 Farrales, Mrs. Franklin, 9801 Mission Rd., Shawnee Mission, Kan. 66206
 Fedotin, Mrs. Michael S., 3019 W. 84th, Shawnee Mission, Kan. 66206
 Fee, Mrs. Chester, Rt. 1, Stillwell, Kan. 66085
 Feist, Mrs. William E., 10618 W. 98th Terr., Shawnee Mission, Kan. 66214
 Fischer, Mrs. Jose, 8515 W. 71st, Shawnee Mission, Kan. 66204
 Fitzgerald, Mrs. Robert H., 8505 Cherokee Pl., Shawnee Mission, Kan. 66206
 Flanders, Mrs. Horace F., 5161 W. 75th, Shawnee Mission, Kan. 66208
 Flatley, Mrs. John A., 827 Huntington Rd. 64113
 Flynn, Mrs. James M., 5720 High Dr., Shawnee Mission, Kan. 66208
 Folck, Mrs. William P., 5804 N.W. 72nd 64151
 Forman, Mrs. Louis H., 2801 W. 67th, Shawnee Mission, Kan. 66208
 Forsythe, Mrs. Robert W., 6457 Verona Rd., Shawnee Mission, Kan. 66208
 Fouts, Mrs. Dallas, Sr., Box 124, Lee's Summit 64063
 Fowler, Mrs. Fred D., 1231 W. 56th 64113
 Fowler, Mrs. James, 200 W. 53rd Terr. 64112
 Fredeen, Mrs. Robert C., 5437 Canterbury Rd., Shawnee Mission, Kan. 66205
 Frick, Mrs. J. Paul, 4740 Roanoke Pkwy., Apt. 905 64112
 Fritzlen, Mrs. Thomas J., 825 W. 63rd 64113
 Gainey, Mrs. Harold L., 4907 Sunset Dr. 64112
 Ganley, Mrs. William Coyle, 9927 Walnut Dr., Apt. 103 64114
 Garner, Mrs. James H., 8000 Sagamore Rd., Shawnee Mission, Kan. 66206
 Garrison, Mrs. Roy F., 404 W. 67th Terr. 64113
 Gauthier, Mrs. Charles P., 11319 Summit 64114
 Geha, Mrs. Braham J., 4 Wycklow, Shawnee Mission, Kan. 66207
 Geiger, Mrs. W. A., Jr., 3506 W. 92nd Terr., Leawood, Kan. 66206
 Gibbons, Mrs. Robert T., Jr., 8422 Reinhardt La., Shawnee Mission, Kan. 66206
 Gilgore, Mrs. Alfred, 8935 Rosewood Dr., Shawnee Mission, Kan. 66207
 Ginsberg, Mrs. Norman A., 1220 W. 67th 64113
 Gist, Mrs. W. W., 1230 W. 66th 64113
 Givler, Mrs. Robert L., 408 Hargis La., Belton 64012
 Glasscock, Mrs. Ernest L., 6214 High Dr., Shawnee Mission, Kan. 66208
 Goerz, Mrs. Royal D., 4336 Dover, Independence 64055
 Goheen, Mrs. John R., 3681 Madison 64111
 Goldman, Mrs. Stanley, 5734 Windsor Dr., Shawnee Mission, Kan. 66205
 Goldsch, Mrs. Edward, 5115 W. 81st, Shawnee Mission, Kan. 66208
 Goldstein, Mrs. Marvin F., 901 W. 113th Terr. 64114
 Goodson, Mrs. W. H., 815 W. 59th 64113
 Goolsbee, Mrs. Robert, 6438 Sagamore, Shawnee Mission, Kan. 66208
 Gordon, Mrs. Morris P., 10527 Walnut Dr. 64114
 Gottsch, Mrs. Joseph C., 7904 Granada, Prairie Village, Kan. 66208
 Green, Mrs. John R., Jr., 3143 Santa Fe Terr., Independence 64055
 Griffith, Mrs. John A., Jr., 6500 Granada Dr., Shawnee Mission, Kan. 66208
 Growdon, Mrs. John A., 6508 Aberdeen Rd., Shawnee Mission, Kan. 66208
 Guastello, Mrs. Mario J., 7020 Overhill Rd., Shawnee Mission, Kan. 66208
 Habib, Mrs. Henry N., 440 E. 74th Terr. 64131
 Hagar, Mrs. David L., 8800 E. 62nd, Raytown 64133
 Hahn, Mrs. Fred, 12001 E. 48th Terr. 64133
 Haight, Mrs. J. Max, 5609 Blue Ridge Blvd. 64133
 Halperin, Mrs. Phillip H., 6715 W. 52nd Pl., Mission, Kan. 66222
 Hamill, Mrs. Robert W., 7311 Eby Dr., Shawnee Mission, Kan. 66204
 Hamlin, Mrs. Howard, 4017 W. 100th Pl., Shawnee Mission, Kan. 66207
 Hanson, Mrs. E. Jerome, Jr., 3801 W. 63rd, Shawnee Mission, Kan. 66204
 Hartwig, Mrs. Fred H., 5204 Pawnee Dr., Shawnee Mission, Kan. 66205
 Hartwig, Mrs. Raymond W., 6546 Wenonga Rd., Shawnee Mission, Kan. 66208
 Hausheer, Mrs. Herman, 12900 E. 36th Terr., Independence 64050
 Haynes, Mrs. Solon, 121 W. 73rd 64114
 Hays, Mrs. Larry V., 4000 W. 67th Terr., Prairie Village, Kan. 66208
 Hellman, Mrs. Richard, 4817 W. 81st, Shawnee Mission, Kan. 66208
 Helman, Mrs. Richard G., 6540 Wenonga Rd., Shawnee Mission, Kan. 66208
 Herdoiza, Mrs. Alfonso W., 5300 W. 98th Terr., Overland Park, Kan. 66207
 Herman, Mrs. Edwin, 8 W. Bridgespur 64114
 Hervey, Mrs. William H., II, 6601 Overhill Rd., Shawnee Mission, Kan. 66208
 Hibbard, Mrs. Blaine Z., 2900 W. 53rd, Shawnee Mission, Kan. 66205
 Hickerson, Mrs. William H., 4207 S. Cryslar, Independence 64050
 Hill, Mrs. J. H., 8115 Meadow La., Leawood, Kan. 66206
 Hink, Mrs. Fred W., 524 S. Hardy, Independence 64053
 Hoadley, Mrs. William D., 2608 W. 70th, Shawnee Mission, Kan. 66208
 Hodgson, Mrs. Frank H., 1049 W. 55th 64113
 Hoepfer, Mrs. Samuel D., Box 169, Grandview 64038
 Hoffman, Mrs. Alan L., 12301 W. 57th 64133
 Hollinger, Mrs. Lloyd A., 4403 W. 93rd Terr., Shawnee Mission, Kan. 66207
 Holman, Mrs. Joseph, 5208 Bekkevieu 64112
 Hollweg, Mrs. Kenneth C., 808 W. Meyer Blvd. 64113
 Holton, Mrs. Edward B., 2817 Westport Rd., Independence 64052
 Hughes, Mrs. Michael, 4930 W. 97th, Shawnee Mission, Kan. 66207
 Hunkeler, Mrs. John D., 5421 Fairway Rd., Shawnee Mission, Kan. 66205
 Hunt, Mrs. Thomas R., 6336 Ensley La., Shawnee Mission, Kan. 66208
 Hunzicker, Mrs. Warren, 1248 Stratford Rd. 64113
 Hyde, Mrs. Lawrence L., 5020 W. 67th, Shawnee Mission, Kan. 66208
 Ingham, Mrs. Walton C., 9723 Overbrook Rd., Leawood, Kan. 66206
 Irvine, Mrs. John, 2500 Red Bridge Terr. 64131
 Irvin, Mrs. Douglas H., Jr., 9818 Rosewood Dr., Shawnee Mission, Kan. 66207

Jacob, Mrs. Walter P., 5301 W. 83rd Terr., Shawnee Mission, Kan. 66207
Jacobs, Mrs. Morton, 6416 Verona Rd., Prairie Village, Kan. 66208
Jacobs, Mrs. Walter H., 6656 Milhaven Dr., Shawnee Mission, Kan. 66202
Johnson, Mrs. C. Laurence, 729 S. 53rd, Kansas City, Kan. 66106
Johnson, Mrs. Dallas A., 5321 96th Terr., Shawnee Mission, Kan. 66207
Jonas, Mrs. Harry S., 11711 Markham Rd., Independence 64052
Jones, Mrs. Gale O., 817 W. 61st 64113
Jones, Mrs. Samuel T., 9915 Cherokee La., Shawnee Mission, Kan. 66207
Jones, Mrs. T. Reid, 6341 Roe, Shawnee Mission, Kan. 66208
Justus, Mrs. John B., 5221 Howe Dr., Shawnee Mission, Kan. 66205
Kanarek, Mrs. Joseph, 6112 W. 87th Terr., Shawnee Mission, Kan. 66207
Kandt, Mrs. Ray E., Jr., 8900 Maple Dr., Shawnee Mission, Kan. 66207
Kantor, Mrs. Julius M., 6708 High Dr., Shawnee Mission, Kan. 66208
Kantor, Mrs. Samuel, 3604 W. 87th, Leawood, Kan. 66206
Katf, Mrs. Nichola Y., 11812 Central 64114
Kay, Mrs. Billy F., 10326 Sagamore La., Leawood, Kan. 66206
Kavanan, Mrs. Jose, 200 W. 100th Terr. 64114
Keairnes, Mrs. Harold W., 5323 Oak 64112
Keeler, Mrs. James E., 425 E. Meyer Blvd. 64131
Keeling, Mrs. Douglas, 7705 W. 102nd, Shawnee Mission, Kan. 66212
Keltner, Mrs. Raymond O., 8900 Pawnee La., Leawood, Kan. 66206
Kendall, Mrs. Charles A., 604 Red Rd., Independence 64055
Kendall, Mrs. Forrest H., 2505 W. 71st, Prairie Village, Kan. 66208
Kennard, Mrs. G. Keith, 3658 Madison 64111
Kent, Mrs. Bela, 5839 Cherokee, Shawnee Mission, Kan. 66205
Kerr, Mrs. H. Harper, 8121 N.W. Miami 64152
Kettner, Mrs. Edward G., 6510 Milhaven Dr., Shawnee Mission, Kan. 66202
Kerr, Mrs. Richard H., 6429 Overbrook Rd., Shawnee Mission, Kan. 66208
Killen, Mrs. Duncan A., 1909 W. 70th, Shawnee Mission, Kan. 66208
Kindred, Mrs. Lynn H., 4606 W. 82nd Terr., Prairie Village, Kan. 66208
Kitchen, Mrs. W. M., 2700 W. 68th, Shawnee Mission, Kan. 66208
Klein, Mrs. E. H., 7011 Roe, Prairie Village, Kan. 66208
Knoch, Mrs. H. Kermit, 6606 Willow La., Shawnee Mission, Kan. 66208
Koontz, Mrs. Paul G., 809 W. 57th 64113
Koppers, Mrs. Lawrence E., 9304 Lee Ct., Leawood, Kan. 66206
Kranson, Mrs. Seymour J., 11 Hawthorne Pl., Independence 64052
Kurtz, Mrs. Karl J., 10012 Wedd Dr., Shawnee Mission, Kan. 66212
Kuruvilla, Mrs. George, 11201 Jefferson 64114
Kyger, Mrs. John E., 3612 Blue Ridge, Independence 64052
Lamar, Mrs. Robert F., 800 W. 53rd Terr. 64112
Lambie, Mrs. Rodger W., 10317 Grant La., Shawnee Mission, Kan. 66212
Landers, Mrs. Burnell, 13101 Delaware Dr., Independence 64055
Landis, Mrs. George K., P.O. Box 7307, Shawnee Mission, Kan. 66207
Latham, Mrs. Raymond W., 3008 W. 67th, Shawnee Mission, Kan. 66208
Lauer, Mrs. Daniel J., 8718 Cherokee La., Leawood, Kan. 66206
Layle, Mrs. John K., 5800 High Dr., Shawnee Mission, Kan. 66208
Lavton, Mrs. Ira, 6511 W. 67th, Shawnee Mission, Kan. 66202
Lee, Mrs. Gerald B., 13412 E. 51st 64133
Lee, Mrs. Henry A., 9821 Sagamore Rd., Leawood, Kan. 66206
Lee, Mrs. King Y., 10811 W. 100th St. Terr. Shawnee Mission, Kan. 66214
Lentz, Mrs. Clark H., 2600 W. 69th, Shawnee Mission, Kan. 66208
Leo, Mrs. William A., 4505 W. 66th, Prairie Village, Kan. 66208
Lindgren, Mrs. Charleton J., 12805 E. 38th, Independence 64055
Link, Mrs. Vance E., 1201 W. 36th, Independence 64050
Linville, Mrs. Howard E., 9905 Cherokee La., Leawood, Kan. 66206

Long, Mrs. R. Stacy, 3343 Blue Ridge Blvd., Independence 64052
Lotito, Mrs. Carlos, 2603 W. 70th Terr., Shawnee Mission, Kan. 66208
Loutzenhiser, Mrs. James K., 11405 Jefferson 64114
Lowell, Mrs. Paul, 4742 Liberty 64112
Lundgren, Mrs. Fred H., Jr., 201 W. 116th 64114
Lulo, Mrs. Antonio, 8726 Cherokee La., Leawood, Kan. 66206
Lyddon, Mrs. H. R., Jr., 1221 W. 67th 64113
Lytton, Mrs. George J., Regional Mental Health Center, Hastings, Neb. 68901
Mahen, Mrs. Sam E., 8954 E. 60th Terr. 64133
MacGee, Mrs. Edwin E., 10012 Hardy Dr., Shawnee Mission, Kan. 66214
MacNaughton, Mrs. Ralph E., 17 Wycklow, Overland Park, Kan. 66207
Mallouck, Mrs. Alexander G., 6508 W. 102nd, Shawnee Mission, Kan. 66212
Mangels, Mrs. Kenneth A., Jr., 1103 W. 36th Terr., Independence 64055
Mantz, Mrs. Herbert L., 1209 Romany Rd. 64113
Marks, Mrs. Mark M., 6537 Summit 64113
Martin, Mrs. Clyde V., 5531 E. Mission Dr., Shawnee Mission, Kan. 66208
Masucci, Mrs. Joseph M., 11800 Washington 64114
Mathews, Mrs. Robert, 9244 Riggs La., Shawnee Mission, Kan. 66212
Mayer, Mrs. John H., Jr., 5739 Windsor Dr., Shawnee Mission, Kan. 66205
McNelly, Mrs. George, 511 Park 64127
McCallister, Mrs. Ben D., 6431 Norwood, Shawnee Mission, Kan. 66212
McCanse, Mrs. Lynn, 7334 Mercier 64114
McClanahan, Mrs. Robert C., 6456 Overbrook Rd., Shawnee Mission, Kan. 66208
McConahay, Mrs. David R., 6225 Indian La., Shawnee Mission, Kan. 66208
McCoy, Mrs. Frederick J., 5814 Mission Dr., Shawnee Mission, Kan. 66208
McDonald, Mrs. Herbert L., 435 W. 58th 64113
McDonnell, Mrs. John F., 5411 Central 64112
McFarland, Mrs. Harry R., 1005 W. 69th Terr. 64113
McGannon, Mrs. Paul, 2201 Arno Rd., Shawnee Mission, Kan. 66208
McIntosh, Mrs. Donald E., 12709 Oakmont Dr. 64145
McKnelly, Mrs. William V., 7228 Hadley, Shawnee Mission, Kan. 66204
McMillan, Mrs. Thomas E., 8201 Dearhorn, Shawnee Mission, Kan. 66208
McNahney, Mrs. W. Kendall, 5319 Oak 64112
Medlicott, Mrs. William, 426 Winnebago, Greenwood 64034
Meegan, Mrs. Robert J., 401 W. 119th Terr. 64145
Mehta, Mrs. Satish K., 2307 E. 109th 64131
Melgaard, Mrs. S. Ross, 1012 W. 61st Terr. 64113
Meyer, Mrs. Paul W., 5160 Sunset Dr. 64112
Meyers, Mrs. Harold L., 1901 Brookwood Rd., Shawnee Mission, Kan. 66208
Miles, Mrs. George O., 9020 Mission Rd., Shawnee Mission, Kan. 66206
Milgram, Mrs. Byron A., 1209 W. 66th Terr. 64113
Miller, Mrs. Gerald L., 836 W. 51st 64112
Miller, Mrs. Max L., 4001 W. 66th, Prairie Village, Kan. 66208
Miller, Mrs. Wilson H., 6400 Verona Rd., Shawnee Mission, Kan. 66208
Mitchell, Mrs. Andrew D., 4013 W. 73rd Terr., Shawnee Mission, Kan. 66208
Mitchell, Mrs. John D., 6104 Lockton La., Shawnee Mission, Kan. 66205
Mitra, Mrs. Nirmal, 2007 W. 81st Terr., Shawnee Mission, Kan. 66206
Mixon, Mrs. William C., 6501 Sagamore Rd., Shawnee Mission, Kan. 66208
Montello, Mrs. Samuel A., 4109 Delmar Dr., Prairie Village, Kan. 66208
Mooney, Mrs. Marcel L., 6439 Ensley La., Shawnee Mission, Kan. 66208
Moore, Mrs. Jack D., 4922 State Line Rd., Shawnee Mission, Kan. 66205
Moore, Mrs. Robert A., 10818 W. 102nd, Shawnee Mission, Kan. 66214
Morgan, Mrs. David B., 6513 Jefferson 64113
Morris, Mrs. Joseph H., 5017 George 64133
Morrow, Mrs. Raymond L., 17 W. 69th 64113

Moshacher, Mrs. Hugh E., 919 Lake Court Dr., Independence 64055
Mueller, Mrs. M. J., 11723 Central 64114
Mullen, Mrs. Leo M., 1900 W. 68th, Shawnee Mission, Kan. 66208
Murphy, Mrs. Robert J., 6428 High Dr., Shawnee Mission, Kan. 66208
Murray, Mrs. W. Lee, 16 Wycklow, Overland Park, Kan. 66207
Myers, Mrs. George H., 12712 High Dr., Leawood, Kan. 66209
Naime, Mrs. Mansour J., 9625 Linden Dr., Shawnee Mission, Kan. 66207
Nesselrode, Mrs. John H., 12000 Marbec Trail, Independence 64052
Neumann, Mrs. James, 5850 Pemhroke Ct., Shawnee Mission, Kan. 66208
Nickson, Mrs. Charles E., Jr., 4425 Larson 64133
Nohack, Mrs. R. K., 628 W. 67th 64113
Noltensmeyer, Mrs. Milton, 3305 W. 50th Terr., Shawnee Mission, Kan. 66205
O'Farrell, Mrs. Thomas, 2000 Stratford Rd., Shawnee Mission, Kan. 66208
O'Hearne, Mrs. John J., 10324 Mohawk Rd., Leawood, Kan. 66208
Overesch, Mrs. Harry B., 10804 Grandview Rd. 64137
Owens, Mrs. James, 1258 Huntington Rd. 64113
Ozar, Mrs. Milton B., 1206 W. 62nd 64113
Pakula, Mrs. Sidney F., 10839 State Line 64114
Parker, Mrs. Huhert M., 1200 W. Red Bridge Rd. 64114
Pemberton, Mrs. L. Beaty, 9921 W. 65th Dr., Shawnee Mission, Kan. 66203
Penner, Mrs. Stanley, 4302 W. 93rd Terr., Shawnee Mission, Kan. 66207
Perico, Mrs. Carlos, 8729 Rosewood, Shawnee Mission, Kan. 66207
Perill, Mrs. Maurice F., 830 W. 61st Terr. 64113
Perry, Mrs. Ralph, 7140 Sni-A-Bar Rd. 64129
Peterson, Mrs. Eugene G., 108 Hackberry, Lee's Summit 64063
Peterson, Mrs. George, 4806 W. 68th, Shawnee Mission, Kan. 66208
Pfeutz, Mrs. Edwin L., 5407 W. 100th Terr., Shawnee Mission, Kan. 66207
Piebenga, Mrs. Larry W., 4010 W. 57th, Fairway, Kan. 66205
Piepergerdes, Mrs. Larry G., 1410 W. 5th, Lee's Summit 64063
Pinkerton, Mrs. Joseph A., Jr., 2019 W. 70th Terr., Shawnee Mission, Kan. 66208
Piper, Mrs. Donald K., 9929 High Dr., Shawnee Mission, Kan. 66206
Pollock, Mrs. Leo H., 6610 Wenonga Terr., Shawnee Mission, Kan. 66208
Porter, Mrs. Louis, 6017 McGee 64113
Porter, Mrs. Michael, 6925 Belinder, Shawnee Mission, Kan. 66208
Potts, Mrs. Donald A., 18508 E. 30th Terr., Independence 64050
Prostic, Mrs. Edward J., 5500 Chadwick, Shawnee Mission, Kan. 66205
Pryor, Mrs. Harold J., 12015 Overbrook Dr., Shawnee Mission, Kan. 66209
Quer, Mrs. Erich A., 1901 Stratford Rd., Shawnee Mission, Kan. 66208
Raich, Mrs. Robert A., 828 Greenway Terr. 64113
Ramey, Mrs. Ehret O., 8108 Ward Parkway Plaza 64114
Rector, Mrs. Joe Lee, Jr., 3915 W. 53rd, Shawnee Mission, Kan. 66205
Reinhardt, Mrs. G. Robert, 1201 Romany Rd. 64113
Riller, Mrs. L. E., 1267 W. 61st 64113
Rippey, Mrs. John H., 6551 Wenonga Rd., Shawnee Mission, Kan. 66208
Robinson, Mrs. Arthur W., 6600 Wenonga Rd., Shawnee Mission, Kan. 66208
Robinson, Mrs. James Travis, Jr., 4203 W. 92nd Terr., Shawnee Mission, Kan. 66207
Robinson, Mrs. William J., 9931 Lee Circle, Shawnee Mission, Kan. 66206
Rohles, Mrs. Luis H., 5219 Farley La., Shawnee Mission, Kan. 66203
Rodgers, Mrs. George H., 10041 El Monte La., Shawnee Mission, Kan. 66207
Rofail, Mrs. Amin, 9206 England, Shawnee Mission, Kan. 66212
Romito, Mrs. Anthony J., 9015 Lamar, Shawnee Mission, Kan. 66207
Roth, Mrs. Alfred D., 6644 Outlook, Mission, Kan. 66202
Rozen, Mrs. Jay L., 9520 Linden, Shawnee Mission, Kan. 66207
Ruhin, Mrs. Harvey P., 4606 W. 87th Terr., Shawnee Mission, Kan. 66207

Rubin, Mrs. Sidney, 1287 W. 72nd 64114
Sabates, Mrs. Felix, 2503 W. 70th Terr.,
Shawnee Mission, Kan. 66208
Sanders, Mrs. Donald, 11721 Oak 64114
Sanders, Mrs. William F., 1004 W. 66th
Terr. 64113
Sauer, Mrs. Gordon C., 830 W. 58th Terr.
64113
Schaerr, Mrs. W. W., 5245 Mercier 64112
Schiffmacher, Mrs. Jack E., 4517 W. 65th,
Prairie Village, Kan. 66208
Schillie, Mrs. Gene A., 7010 Overhill Rd.,
Shawnee Mission, Kan. 66212
Schlozman, Mrs. Daniel L., 9315 Lamar,
Shawnee Mission, Kan. 66207
Schoolman, Mrs. Arnold, 8705 Catalina Dr.,
Shawnee Mission, Kan. 66207
Schottman, Mrs. Gerhard W., Jr., 5110 W.
96th Terr., Shawnee Mission, Kan. 66207
Seeley, Mrs. Clark W., 3000 W. 68th,
Shawnee Mission, Kan. 66208
Seiden, Mrs. Gerald D., 2509 W. 71st,
Prairie Village, Kan. 66208
Sells, Mrs. Kenneth J., 2929 Baltimore,
Suite 310, 64108
Shalley, Mrs. Jack E., 14401 E. 44th,
Independence 64055
Shapiro, Mrs. L. M., 6429 Holmes 64131
Sheahon, Mrs. John, 7037 Lakeshore Dr.,
Raytown 64133
Sheldon, Mrs. Russell D., 816 W. 58th Terr.
64113
Shiffrin, Mrs. Alexander, 1027 W. 69th Terr.
64113
Shuey, Mrs. Herbert H., 5339 W. 96th,
Shawnee Mission, Kan. 66207
Simon, Mrs. Sanford, 5820 Mission Dr.,
Shawnee Mission, Kan. 66208
Sinclair, Mrs. Alexander B., Jr., 1230 W.
61st Terr. 64113
Sinclair, Mrs. Richard H., 3908 W. 91st,
Shawnee Mission, Kan. 66207
Singleton, Mrs. Charles M., II, 4101 W.
57th, Shawnee Mission, Kan. 66205
Skillman, Mrs. Robert K., 10335 High Dr.,
Shawnee Mission, Kan. 66206
Skinner, Mrs. John T., 824 Westover Rd.
64113
Slentz, Mrs. Edwin L., 4812 W. 66th Terr.,
Shawnee Mission, Kan. 66208
Slentz, Mrs. William A., 9835 Pembroke La.,
Shawnee Mission, Kan. 66206
Slickman, Mrs. Robert A., 4937 Wyoming
64112
Smith, Mrs. Arthur B., 8409 Wenonga Rd.,
Shawnee Mission, Kan. 66206
Smith, Mrs. Othello D., 5400 W. 83rd,
Shawnee Mission, 66206
Smith, Mrs. Wallace B., 3611 S. Delaware,
Independence 64055
Sneid, Mrs. Philip, 4201 W. 90th Terr.,
Shawnee Mission, Kan. 66207
Snider, Mrs. Wilbur Ray, 1321 W. 50th Terr.
64112
Soper, Mrs. Steven J., 1210 W. Lexington,
Independence 64050
Spafford, Mrs. Allen L., 5552 Belinder Ave.,
Shawnee Mission, Kan. 66205
Spalding, Mrs. Wilbur B., Jr., 5400 Ward
Pkwy. 64112
Spurny, Mrs. Otto M., 6400 Cherry 64131
Staab, Mrs. Gerald E., 8008 Granada 66208
Stacey, Mr. Wallace R., 3407 Shady Bend
Dr., Independence 64052
Staggs, Mrs. William A., 641 E. 45th 64110
Staley, Mrs. Harry R., 4740 Roanoke Pkwy.
64112
Statland, Mrs. Harry, 1016 W. 69th Terr.
64113
Statland, Mrs. Morris, 2911 W. 66th Terr.,
Shawnee Mission, Kan. 66208
Steffen, Mrs. L. F., 9548 Rosewood La.,
Shawnee Mission, Kan. 66207
Stelmach, Mrs. W. Jack, 4303 W. 93rd Terr.
Shawnee Mission, Kan. 66207
Stern, Mrs. Thomas L., 1235 W. 62nd 64113
Stockton, Mrs. Raymond W., 5215 W. 81st,
Prairie Village, Kan. 66208
Stribling, Mrs. Thomas L., 3808 S. Union,
Independence 64055
Stromberg, Mrs. Eric D., 6233 Summit 64113
Stuber, Mrs. Jack L., 5617 Pembroke La.,
Shawnee Mission, Kan. 66208
Sulit, Mrs. Arnulfo B., 11001 W. 100th Pl.,
Shawnee Mission, Kan. 66214
Sutton, Mrs. Richard L., Jr., 3203 W. 83rd
Terr., Leawood, Kan. 66206
Szabados, Mrs. Ernest D., 1901 S. Leslie,
Independence 64050
Thalblum, Mrs. Harvey, 8405 Ensley La.,
Shawnee Mission, Kan. 66206
Thomas, Mrs. Christopher Y., Jr., 5830 Mis-
sion Dr., Shawnee Mission, Kan. 66208
Thomas-Richards, Mrs. Jose, 8551 Holmes,
#75 64131

Throne, Mrs. Benjamin, 7919 Sagamore Rd.,
Shawnee Mission, Kan. 66208
Throne, Mrs. Elias M., 10621 W. 102nd,
Overland Park, Kan. 66214
Tice, Mrs. Wayne K., 3504 S. Delaware,
Independence 64050
Tillema, Mrs. David A., 8015 El Monte,
Shawnee Mission, Kan. 66208
Toubes, Mrs. Daniel, 9718 Menonga,
Leawood, Kan. 66206
Troeh, Mrs. Richard, 13000 Delaware Dr.,
Independence 64055
Trowbridge, Mrs. E. H., Jr., 32 Compton
Ct., Shawnee Mission, Kan. 66208
Turano, Mrs. William, 7000 Lake Shore Dr.,
Raytown 64133
Tutera, Mrs. D. F., 1260 W. 63rd Terr.
64113
Twin, Mrs. Edward, 8208 Tomahawk,
Shawnee Mission, Kan. 66208
Twyman, Mrs. Richard A., 1020 W. 56th
64113
Underwood, Mrs. Dick H., 9828 Belinder,
Shawnee Mission, Kan. 66206
Van Biber, Mrs. James T., 3705 Northern
Blvd., Independence 64052
Vaughn, Mrs. James W., 5509 W. 86th,
Shawnee Mission, Kan. 66207
Venegoni, Mrs. Robert L., 8701 Birch La.,
Prairie Village, Kan. 66207
Vera, Mrs. Enrique, 9218 W. 82nd
Terr., Shawnee Mission, Kan. 66204
Victor, Mrs. Frank, 9639 Chadwick,
Shawnee Mission, Kan. 66206
Vidals, Mrs. V. G., 9509 W. 104th Terr.,
Overland Park, Kan. 66212
Vincent, Mrs. Jack C., 2003 W. 67th Terr.,
Shawnee Mission, Kan. 66208
Virden, Mrs. Herbert H., 6533 High Dr.,
Shawnee Mission, Kan. 66208
Vogel, Mrs. Arthur P., 6524 Willow La.,
Shawnee Mission, Kan. 66208
Voth, Mrs. Harold W., 5413 Neosho,
Shawnee Mission, Kan. 66205
Wade, Mrs. Frederick E., 413 W. 62nd
64113
Wagner, Mrs. Paul J., Greenwillow Farm,
Rt. 1, Greenwood 64034
Walker, Mrs. Orville C., Jr., 604 Partridge,
Independence 64050
Wall, Mrs. Leonard A., 5011 Neosho Ave.,
Shawnee Mission, Kan. 66205
Waxman, Mrs. Herbert, 2012 W. 81st,
Shawnee Mission, 66206
Weidmaier, Mrs. E. John, 9728 N. Charlotte
64155
Weir, Mrs. Robert K., 10015 E. 36th,
Independence 64052
Wells, Mrs. Donald E., 1-18 Lake Lotowana,
Rt. 4, Lee's Summit 64063
Wheeler, Mrs. Charles B., 830 W. 53rd
64112
Wheeler, Mrs. John H., 5650 Mission Dr.,
Shawnee Mission, Kan. 66208
White, Mrs. Charles H., 6518 Overhill Rd.,
Prairie Village, Kan. 66208
White, Mrs. Stroughton F., 6815 Cherokee
La., Shawnee Mission, Kan. 66208
Whiteman, Mrs. John R., 9729 Cherokee
La., Leawood, Kan. 66206
Whitman, Mrs. Doyle C., 6836 Cherokee
La., Shawnee Mission, Kan. 66208
Whitmore, Mrs. J. Stewart, 5516 Tahoe La.,
Shawnee Mission, Kan. 66205
Whitten, Mrs. John S., 3823 Trail Ridge,
Independence 64055
Wicks, Mrs. Edwin D., 506 N.W. 43rd Terr.
64116
Wilber, Mrs. Robert D., 6056 Mission Dr.,
Shawnee Mission, Kan. 66208
Wilhelm, Mrs. Warren F., 3100 W. 67th,
Shawnee Mission, Kan. 66208
Wilkinson, Mrs. E. A., 6810 Linden La.,
Prairie Village, Kan. 66208
Williams, Mrs. Frank, 5921 Ward Parkway
64113
Williams, Mrs. George P., 9413 Ralston
64138
Williams, Mrs. Joseph C., Jr., 2209 Arno
Rd., Shawnee Mission, Kan. 66208
Williams, Mrs. Vincent T., 4400 Blue Ridge
Blvd. 64133
Willoughby, Mrs. James W., 420 N. Ridge,
Liberty 64068
Willoughby, Mrs. Jean B., 1019 W. 69th
Terr. 64113
Winer, Mrs. Herbert J., 2103 W. 69th Terr.,
Shawnee Mission, Kan. 66208
Winer, Mrs. Nathaniel, 1007 Brentwood
Circle 64112
Winston, Mrs. Bernard H., 1006 W. 67th
64113
Wise, Mrs. Morris F., 2610 W. 105th,
Leawood, Kan. 66206

Wolf, Mrs. Jack, 6125 Morningside Dr.
64113
Woods, Mrs. S. Dwight, 3201 W. 68th,
Shawnee Mission, Kan. 66208
Woods, Mrs. Walton C., 9004 E. 73rd 64133
Wortmann, Mrs. Robert F., 2819 W. 66th
Terr., Shawnee Mission, Kan. 66208
Wright, Mrs. R. Paul, 9119 Riggs La.,
Shawnee Mission, Kan. 66212
Wu, Mrs. William, 6700 Troost 64131
Wurster, Mrs. Jerry B., 5218 W. 98th Terr.,
Shawnee Mission, Kan. 66207
Youll, Mrs. Donald V., 8711 Ensley La.,
Shawnee Mission, Kan. 66206
Youmans, Mrs. Ronald, 3901 W. 73rd,
Shawnee Mission, Kan. 66208
Young, Mrs. James E., 9700 Overbrook Rd.,
Leawood, Kan. 66206
Young, Mrs. J. W., 5443 Mohawk, Shawnee
Mission, Kan. 66205
Zahony, Mrs. Ivan, 8720 Rosewood,
Shawnee Mission, Kan. 66207
Zoglin, Mrs. Nathan, 333 W. Meyer Blvd.
64113
Zoller, Mrs. David D., 74 Lake Shore Dr.,
Lake Quivera, Kansas City 66106
Zwerenz, Mrs. Bruno, 15 A Lake Tapawingo,
Blue Springs 64015

JASPER COUNTY (Joplin)

Adams, Mrs. Robert, 1302 Mississippi 64801
Allen, Mrs. David O., Rt. 4, Box 85 64801
Alquist, Mrs. Dale, 21st & Fairview, Baxter
Springs, Kan. 66713
Bentlage, Mrs. Charles, 1302 Fairmont Dr.
64801
Bhend, Mrs. David, 2435 E. 12th 64801
Bird, Mrs. William F., Rt. 2, Box 144,
Lot 17 64801
Black, Mrs. M. H., 2814 Wisconsin 64801
Bladow, Mrs. Terrence, 2703 Mississippi
64801
Bopp, Mrs. Ronald, 505 Glenview 64801
Brandon, Mrs. Frederick, 2609 E. 12th
64801
Burch, Mrs. John E., 1345 Crest Dr. 64801
Burleigh, Mrs. Bruce, 601 Jaccard Pl. 64801
Butler, Mrs. Patrick, Rt. 1, Box 280,
Diamond 64840
Carnes, Mrs. Victor, 1418 Crestwood Dr.
64801
Chase, Mrs. Ned, 2931 Indiana 64801
Chesney, Mrs. George W., Jr., 2416 E. 12th
64801
Cohle, Mrs. Richard, 1609 Lilac La.,
Carthage 64836
Craig, Mrs. Irwin T., 2525 E. 12th 64801
Crawford, 2931 Pearl Ave. 64801
Crispell, Mrs. Lawrence, 911 Kensington
Rd. 64801
Curl, Mrs. Howard, 2031½ Pearl 64801
Detar, Mrs. Burleigh, Sr., 410 Jackson 64801
Dixon, Mrs. Herbert, Rt. 2, Box 221 64801
Esther, Mrs. John, 612 Glenview 64801
Ferguson, Mrs. Ralph, 420 E. 33rd 64801
Ferguson, Mrs. Robert M., 2319 E. 10th
64801
Fritsch, Mrs. Andrew, 2920 Pearl 64801
Gardner, Mrs. Joe, 1002 N. Moffet 64801
Gaston, Mrs. Samuel, 2720 Ohio 64801
George, Mrs. Bill, 403 E. 14th, Carthage
64836
Grim, Mrs. Edward, 1402 Mississippi 64801
Hallaba, Mrs. Moheb, Rt. 2, Box 197C
64801
Hamilton, Mrs. Eugene, 2736 E. 15th 64801
Hilton, Mrs. Paul, 1612 Murphy Blvd. 64801
Majzoub, Mrs. Hish, 2802 Illinois 64801
Isbell, Mrs. C. H., 1046 S. Garrison,
Carthage 64836
Jeans, Mrs. Virgil, 660 Jaccard Pl. 64801
Kirkman, Mrs. Robert E., 2504 E. 10th
64801
Koehler, Mrs. John W., 1001 Manitou 64801
Longnecker, Mrs. J. L., 2606 E. 14th 64801
MacLaughlin, Mrs. James, 728 N. Pearl
64801
Maddox, Mrs. John, 1330 Crest Dr. 64801
Manalo, Mrs. Gil B., 1320 S. Main, Carthage
64836
Martin, Mrs. Clarence, 2419 E. 10th 64801
McConigle, Mrs. James, 1037 Campbell
Pkwy. 64801
McPike, Mrs. Lloyd H., 2217 Brownell
64801
Mueller, Mrs. Adolph, 615 Hampton Pl.
64801
Papp, Mrs. Sandor D., 3343 Pearl 64801
Patterson, Mrs. Donald R., 210 Duquesne
64801
Patterson, Mrs. Grover, 1727 River,
Carthage 64836

Pence, Mrs. Wendell, Rt. 4, Box 309-D,
Carthage 64836
Powell, Mrs. Robert, 1818 Galena, Galena,
Kan. 66739
Pryor, Mrs. I. Joe, 2625 Wisconsin 64801
Roberts, Mrs. Howard, 650 Jaccard Pl.
64801
Schoeberl, Mrs. C. B., 3111 E. 4th 64801
Schulte, Mrs. Gregory A., 2515 E. 12th
64801
Scorse, Mrs. S. W., 619 W. 2nd 64801
Simons, Mrs. Jess, 2700 McClelland Blvd.
64801
Smith, Mrs. Roland T., 1444 Crestwood
64801
Smith, Mrs. Russell W., 315 Euclid,
Carthage 64836
Straub, Mrs. David L., 811 N. Byers 64801
Usher, Mrs. Albert E., 69 Canterbury
64801
Vineyard, Mrs. Jack, 601 S. Jackson 64801
Walker, Mrs. Paul, 1022 N. Sergeant 64801
Wieman, Mrs. Harry K., 636 N. Wall 64801
Wilcoxson, Mrs. Robert, 1330 Valle Dr.
64801
Wood, Mrs. George H., 530 E. Highland,
Carthage 64836
Wooldridge, Mrs. Bart, 1435 Crestwood
64801
Young, Mrs. C. C., 2518 Markwardt 64801

JEFFERSON COUNTY

Albano, Mrs. Benjamin, 114 Mississippi
Ave., Crystal City 63019
Allbee, Mrs. Roger H., 121 B Mississippi
Ave., Crystal City 63019
Bai, Mrs. Sangzin, 24 Tree Brook Dr.,
Crystal City 63019
Blank, Mrs. Michael K., 111 Easton,
De Soto 63020
Bonifacio, Mrs. Andres, 121 Mississippi
Ave., Crystal City 63019
Carron, Mrs. Joseph F., 1606 Hobelman,
Arnold 63010
Deles, Mrs. Vincente D., 121 Mississippi
Ave., Crystal City 63019
Donnell, Mrs. Harold E., 702 N. Main,
De Soto 63020
Donnell, Mrs. Robert H., 112 Mississippi
Ave., Crystal City 63019
Glasgow, Mrs. David S., 113 Mississippi
Ave., Crystal City 63019
Judge, Mrs. Walter T., 125 Mississippi Ave.,
Crystal City 63019
Mayfield, Mrs. J. Logan, 106 Mississippi
Ave., Crystal City 63019
Park, Mrs. Duk J., 106 N. Mill, Festus
63028
Sirintrapun, Mrs. Syvee, 303 Main, Festus
63028
Verzola, Mrs. Eufenio G., Main,
Herculaneum 63048

JOHNSON COUNTY (Warrensburg 64093)

Cooper, Mrs. R. Lee, Rt. 1
Cooper, Mrs. Robert, 11, 801 E. Gay
Damron, Mrs. O. H., 308 Jones
Folkner, Mrs. Albert L., Rt. 1
Hanna, Mrs. Hugh, Rt. 3
Hobbs, Mrs. George H., Grandview Dr.,
Rt. 2
Johnson, Mrs. Charles S., 502 Hurricane
Hill
Jones, Mrs. Keith D., 711 S. Holden
Lederer, Mrs. Charles M., 617 Clark
Maxson, Mrs. T. Reed, Arilen Acres
Ragland, Mrs. Jerry, Rt. 4
Sicat, Mrs. Alfonso V., Rt. 4

LAFAYETTE-RAY COUNTIES

Boydston, Mrs. Wayne, Odessa 64076
Brady, Mrs. Hugh, Concordia 64020
Cook, Mrs. Thomas B., Richmond 64085
Cope, Mrs. Joseph S., Lexington 64067
Crozier, Mrs. Frank, Sr., Rt. 2, Richmond
64085
Davault, Mrs. George, Richmond 64085
Johnston, Mrs. Esther, Concordia 64020
Kelling, Mrs. Jordan, Waverly 64096
Koppenbrink, Mrs. W. E., Sr., Higginsville
64037
Koppenbrink, Mrs. W. E., Jr., Higginsville
64037
Kuangparichat, Mrs. Manoch, Rt. 1,
Lexington 64067
LaHue, Mrs. William, Sleepy Hollow Dr.,
Lexington 64067
Liston, Mrs. Odis, Oak Grove 64075
Martin, Mrs. W. E., Odessa 64076
McFadden, Mrs. Gene, Waverly 64096
Meyer, Mrs. Jerry, 302 Sunset Hill Dr.,
Concordia 64020
Pavlu, Mrs. Robert R., 14 W. 13th,
Carrollton 64633

Riley, Mrs. Charles, Rt. 4, Box A13,
Richmond 64085
Vajaranant, Mrs. Mani, N. 17th, Lexington
64067
Ward, Mrs. Joe W., 1004 Francis, Lexington
64067

MILLER-MORGAN-MONITEAU COUNTIES

Buehler, Mrs. Carl T., Eldon 65026
Fulks, Mrs. Richard B., California 65018
Callagher, Mrs. Lionel M., California 65018
Gunn, Mrs. Jack, Versailles 65084
Hall, Mrs. C. Robert, 2 Country Pl.,
Versailles 65084
Latham, Mrs. Kenyon, 200 S. High St.,
California 65018
Lyle, Mrs. Ray, 209 S. Maple, Versailles
65084
Shelton, Mrs. E. O., Eldon 65026
Washburn, Mrs. J. L., Versailles 65084

MINERAL AREA (Farmington 63640)

Appleberry, Mrs. R., 815 W. Columbia
Burcham, Mrs. Tom R., Rt. 1, Box 90A
Chastain, Mrs. C. W., 301 W. Liberty
Dierker, Mrs. H. D., 502 "C" St.
Gray, Mrs. Walter C., Rt. 3, Box 189
Grossman, Mrs. Marvin, 500 Marshall,
Fredericktown 63645
Gupta, Mrs. Raj, Farmington State Hosp.
Hoye, Mrs. Robert C., Rt. 2
Karraker, Mrs. Alvan G., 317 Boyce
Kiyanciar, Mrs. Emin M., Farmington State
Hosp.
Lee, Mrs. Ernest Y., Austin Plaza, Potosi
63664
Nicolay, Mrs. William R., 42 S. Deer Terr.,
Fredericktown 63645
Tiffany, Mrs. Delbert E., 1301 Ann, Rt. 4,
Box 446
Tuan, Mrs. Cancelada, 323 N. "A" St.
Tuttle, Mrs. Jay F., Farmington State Hosp.

PETTIS COUNTY (Sedalia 65301)

Azan, Mrs. Kenneth, 2603 Clarendon Rd.
Block, Mrs. Jerome E., Rt. 2
Boger, Mrs. John W., 2803 Skyline Dr.
Braverman, Mrs. Elliott M., Rt. 3, Walnut
Hills
Brazos, Mrs. John, Rt. 6, Box 137
Campbell, Mrs. Albert J., 1500 W. 16th
Cole, Mrs. William R., Rt. 1, Smithton
65350
Edwards, Mrs. David R., 1619 S. Moniteau
Edmonds, Mrs. Robert, 2413 S. Stewart
Eldenburg, Mrs. Donald, Rt. 2
Erickson, Mrs. H. John, Rt. 3, Walnut Hills
Farkas, Mrs. I. Robert, Rt. 3
Fisher, Mrs. Stanley D., 2200 S. Kentucky
Glass, Mrs. Robert, 701 W. Broadway
Hopkins, Mrs. Thomas J., 1506
W. Broadway
Hopkins, Mrs. T. S., 524 S. Grand Ave.
Lamy, Mrs. John E., 400½ Dal-Whi-Mo Ct.
Long, Mrs. Frank B., 723 W. 7th
Owens, Mrs. John H., 3003 Wing
Proctor, Mrs. Donald, 610 W. Third
Roberts, Mrs. Paul A., 101 E. Marshall,
Sweet Springs 65351
Stauffer, Mrs. Gordon C., 1313
W. Broadway
Stockwood, Mrs. Robert C., Rt. 3
Stewart, Mrs. Robert H., 201 Driftwood Dr.
Walter, Mrs. A. L., 1000 W. 7th
Worley, Mrs. Charles A., 102 W. Ray,
Sweet Springs 65351

ST. CHARLES-LINCOLN COUNTIES (St. Charles 63301)

Baird, Mrs. Keim L., 16 Warrwick Ct.
Canty, Mrs. Eugene, 1825 Sibley
Carpenter, Mrs. James, Rt. 5, Box 42,
O'Fallon 63366
Clay, Mrs. Calvin, 808 Oak
Commerford, Mrs. John, 10 Rio Vista
Connelly, Mrs. Michael, 18 Huntleigh
Downs, Frontenac 63131
Cridler, Mrs. Russell, 1875 S. River Rd.
Damron, Mrs. Edward, 602 N. 5th, Elsberry
63343
Del Pizzo, Mrs. Ferdinand, 900 Westminster
Dr.
Di Flippo, Mrs. Emil, 14825 Woodford Way,
Bridgeton 63044
Duncan, Mrs. David, 12911 Cedarledge Ct.,
Creve Coeur 63141
Goldkamp, Mrs. John, 10 Shawnee
Hanlon, Mrs. Russell, 2616 Brookridge La.
Keller, Mrs. Robert, 712 Parr, Wentzville
63385
Kister, Mrs. George, 236 Thomas
Lensenmeyer, Mrs. Charles, 455 Nantucket

Muhm, Mrs. Yale, 548 Riverview La.
Muenster, Mrs. Vincent, 29 Shawnee Dr.
Obando, Mrs. Francisco, Box C, Troy 63379
Ordoukhanian, Mrs. Tatool, 1519
Showmaker Ct., Creve Coeur 63141
Perna, Mrs. Vincent, #14 Rio Vista
Poggemeier, Mrs. William, 23 Shawnee
Rice, Mrs. Ron, 301 Oriole
Roach, Mrs. Edward, 211 Rio Vista
Rother, Mrs. Paul, #7 Elmwood Park
Roxas, Mrs. Gene, 20 Anglers Ct., Lake
St. Louis 63367
Schneider, Mrs. Thomas, 3716 Runnymede
Shuetz, Mrs. Alfred, 904 Indian Hills Dr.
Smoller, Mrs. Martin, 14 Colonial Hills
Pkwy., Creve Coeur 63141
Sergen, Mrs. Nick, 5647 Bermuda, St. Louis
63121
Tejero, Mrs. Jonas, 4 Bellrive Ct.
Towers, Mrs. Orville W., Rt. 1, Box 1
Vah, Mrs. Houshang, 159 Bellechasse Dr.,
Chesterfield 63017
Vart, Mrs. Gary, 2620 Park Ave.
Vighi, Mrs. James, 405 Spring Valley Ct.,
Chesterfield 63017
Westerfeld, Mrs. Roy A., 32 Ayrshire, Rt. 5,
Box 57

ST. LOUIS CITY (St. Louis)

Abel, Mrs. Oliver, III, 6549 Wydown 63105
Annot, Mrs. John P., 28 Countryside La.
63131
Bandle, Mrs. Donald, 3801 January 63109
Barden, Mrs. Frank, 41 Beaver Dr. 63141
Bartlett, Mrs. Willard, Sr., 53 Westmoreland
Pl. 63108
Benjamin, Mrs. Durand, 12567 Chardin Pl.,
Apt. 3 63124
Bergmann, Mrs. Dwayne, 801 S. Skinner
Blvd. 63105
Bergman, Mrs. Hugo F., 2920 Moniteau Dr.
63121
Bohigian, Mrs. George, 21 Roclare La.
63131
Bradley, Mrs. F. R., 7404 Oxford Dr. 63105
Brennan, Mrs. Daniel J., 13614 Peacock
Farm Rd. 63131
Brennan, Mrs. George A., 10546 Hanford
63128
Brennen, Mrs. Robert A., 6030 Highfield
63109
Brown, Mrs. Clyde O., 7419 York Dr. 63105
Brown, Mrs. Seymour, 2169 Bantry La.,
Chesterfield 63017
Bruns, Mrs. Kenneth, 1 Salem Estates 63124
Budd, Mrs. John J., Jr., 501 Overhill Dr.
63130
Burroughs, Mrs. W. H., 7327 Pershing
63130
Burst, Mrs. Donald O., 61 Trent Dr. 63124
Cappel, Mrs. Powell B., 27 Old Westbury
La 63119
Carney, Mrs. Joseph, 6625 Penrod 63139
Cherre, Mrs. Charles J., 10 Ridgeway 63117
Ciapciak, Mrs. Stanley, 30 Log Cabin Dr.
63124
Costa, Mrs. Dominic, 10 Devondale 63131
Daake, Mrs. John, 48 Portland Pl. 63108
Dewald, Mrs. Paul A., 60 Conway La. 63124
Diehr, Mrs. Alvin H., Park Towers Apts.,
200 S. Brentwood 63105
Dorton, Mrs. Robert, 12065 Heatherdane
63131
Dripps, Mrs. Roy, 8709 Red Oak Dr. 63126
Eades, Mrs. D. W., 6 Kingsbury 63112
Edwards, Mrs. Joseph, 610 W. Polo Dr.,
Clayton 63105
Eigel, Mrs. Edwin G., 10111 Hilltop Dr.
63128
Feller, Mrs. Harold, 5834 Bermuda Rd.
63121
Finn, Mrs. M. E., 47 Portland Pl. 63108
Fish, Mrs. Virgil O., 2500 Town & Country
La. 63131
Fitzgerald, Mrs. Leo, 7219 Cornell Ave.
63130
Fitzgerald, Mrs. William, 6425 Rhodes
63109
Franklin, Mrs. Max, 7536 Buckingham
63105
Gandimayr, Mrs. J. M., 13600 Peacock
Farm 63141
Ganter, Mrs. George E., 233 Woodbourne
Dr. 63105
Gantz, Mrs. John A., 10 Muirfield La. 63141
Glaser, Mrs. Martin J., 3550 Hawthorne
Blvd. 63104
Glick, Mrs. Harry N., Friendship Village,
15201 Olive Blvd., Apt. 461, Chesterfield
63017
Goldman, Mrs. Melvin, 8650 Barbey La.
63124

Green, Mrs. William R., 10311 N. Sunswapt 63141
Gresick, Mrs. Robert, 11 Coach-N-Four 63131
Grogan, Mrs. Frank, 4166 Flora Pl. 63110
Gunn, Mrs. Walter, 6742 Itaska 63109
Haddock, Mrs. James, 111 Firwood, Webster Groves 63119
Hall, Mrs. Preston C., 39 Woodcrest Dr. 63124
Harkins, Mrs. William, 7 Kingsbury Pl. 63112
Hassett, Mrs. Henry A., 4440 Lindell 63108
Hawk, Mrs. Bray, 3534 Hawthorne 63104
Haynes, Mrs. Pugh, 8006 Cannon 63130
Hazan, Mrs. Joseph, 300 Enchanted Pkwy., Manchester 63011
Henschel, Mrs. Eugene, 55 Broadview, Clayton 63105
Hicks, Mrs. Robert, 733 Sherwood Dr. 63119
Hilbert, Mrs. Paul, 5701 Pernod 63109
Hogan, Mrs. Patrick, 9036 Laurel Crest 63126
Hollo, Mrs. Vencel W., 8 Country Estates 63131
Jensen, Mrs. Joshua, 3 Brazilian Ct. 63124
Jham, Mrs. Mohan N., 7715 B Charing Sq. 63119
Jones, Mrs. Otey, 2010 Longfellow 63104
Karandjeff, Mrs. A. D., 48 Lake Forest 63117
Karl, Mrs. Michael M., 14 Thorndell Dr. 63117
Kelley, Mrs. Robert, 5317 Waterman Pl. 63112
Kendig, Mrs. John, 841 Rolfe Dr. 63122
Klein, Mrs. Saul J., 11 Huntleigh Downs 63131
Kloeker, Mrs. Richard J., 1022 Hampton Park 63117
Kneal, Mrs. Ellsworth, 725 S. Skinner 63105
Knight, Mrs. William A., Jr., 12 Briar Cliff 63124
Koon, Mrs. Bernard T., 207 Crandon Dr. 63105
Kountz, Mrs. William B., 2619 Gurney Ct. 63110
Krojanker, Mrs. Rolf J., 1060 Purdue 63130
Kronemer, Mrs. Norton, 800 Audubon Dr., Clayton 63105
Kowert, Mrs. Edward H., 330 Planthurst Dr. 63119
Kuhlman, Mrs. Robert E., 12 Upper Barnes Rd. 63124
Lembeck, Mrs. Joseph A., 4103 Flora Pl. 63110
Lerwick, Mrs. E. R., 40 Portland Pl. 63108
Lewis, Mrs. J. Eugene, Jr., 7129 Kingsbury Ave. 63130
Lohr, Mrs. Curtis H., 300 S. Grand Ave. 63103
Lottes, Mrs. J. Otto, 1028 Winwood Dr. 63124
Machek, Mrs. Otakar, 16 Carrsvold 63105
MacNish, Mrs. James M., 229 Bompert 63119
Mathae, Mrs. George H., 3167 S. Grand Blvd. 63118
Mendonsa, Mrs. Lawrence E., 138 Ridgecrest Dr., Chesterfield 63017
Merenda, Mrs. Sam J., 1215 Kings Glen Ct. 63131
Meyerhardt, Mrs. Milton H., 665 S. Skinner 63105
Montgomery, Mrs. A. F., 18 Southcote 63144
Morfit, Mrs. John C., 7627 Wydown Blvd. 63105
Mowrey, Mrs. William, 7071 Lindell Blvd. 63130
Muether, Mrs. Raymond, 19 Country Life Acres 63131
Neilson, Mrs. Arthur W., 6349 Alexander Dr. 63105
Neun, Mrs. William F., 5862 Delor 63109
Niesen, Mrs. Frank, 1304 Brynwood 63124
Nye, Mrs. Robert, 4910 S. Broadway 63111
Oppenheimer, Mrs. Henry E., 9444 Old Bonhomme Rd. 63132
Orenstein, Mrs. Joseph M., 417 Jackson Ave. N. 63130
Peden, Mrs. Joseph C., Jr., 51 Fair Oaks 63124
Peeler, Mrs. J. O., 10000 Knoll Crest Ct. 63136
Pennington, Mrs. F. Eugene, 27 Log Cabin 63124
Portugal, Mrs. A. Q., 10222 Gregory Ct. 63128
Powers, Mrs. Pierce W., 4 Crestwood Dr. 63105

Pyne, Mrs. Herbert S., 5329 Mardel Ave. 63109
Raybuck, Mrs. H. E., Jr., 22 Rolling Rock Ct. 63124
Rendleman, Mrs. George F., 2 Vista Brook 63124
Ritter, Mrs. Hubert A., 26 Briarcliff 63124
Rodrigo, Mrs. Bernardo R., 435 Hickory Glen La. 63141
Sanders, Mrs. Robert D., 4212 Flora Pl. 63110
Scheer, Mrs. George E., 53 Berkshire 63117
Schmidt, Mrs. Edwin H., 10240 Schuessler 63128
Schweiss, Mrs. John F., 1414 Westwind Dr. 63131
Sexton, Mrs. Daniel L., 14 Crestwood Dr. 63105
Shah, Mrs. Anwar, 9810 Log Cabin Ct. 63124
Shaw, Mrs. Edward, 3105 Longfellow 63104
Sherwin, Mrs. Charles S., 3971 Flora Pl. 63110
Simon, Mrs. David L., 7809 Gannon 63130
Smith, Mrs. Benjamin, 5 Fordyce Manor 63131
Strominger, Mrs. Donald B., 701 Yale Ave. 63130
Sudholt, Mrs. Alfred F., Jr., 13398 Conway Rd., Normandy 63121
Sullivan, Mrs. Clement J., 7740 Mohawk Dr. 63105
Sweet, Mrs. Herbert C., 3 St. James Ct. 63119
Thale, Mrs. Thomas, 351 Meadow Brook, Ballwin 63011
Tjoflat, Mrs. Oliver E., 252 Woodbourne 63105
Tremain, Mrs. Irl G., 4254 Flora Pl. 63110
Vandover, Mrs. John T., 3 Grantwood La. 63123
Virant, Mrs. John A., 119 S. Spoede Rd. 63141
Weir, Mrs. Don, 625 Sherwood Dr. 63119
Weinel, Mrs. Francis G., 333 Oakwood Ave. 63119
Werner, Mrs. William A., 6015 Childress Ave. 63109
Witt, Mrs. Clyde M., 11 Deer Creek Woods 63124
Wittgen, Mrs. Edward M., 8901 Rock Forest Dr. 63123
Zink, Mrs. Oscar C., 9 The Orchards 63132

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1976-1977 Policy Manual of the Missouri State Medical Association

This manual shall be a guide for MSMA members to the stand taken by the House of Delegates of the Missouri State Medical Association on issues involving Association policy.

The manual will be updated and revised according to House actions. The date in parentheses following each policy statement denotes the year it was adopted by the House.

Abortion

An abortion should be considered illegal if performed by anyone other than a licensed physician in a place other than a licensed hospital. (1970)

Acupuncture

The MSMA urges the Missouri State Board of Registration for the Healing Arts to utilize such legal and statutory powers as may be available to declare that the principles apparently involved in the practice of acupuncture and shiatsu, if found to be scientifically valid and medically beneficial would fall under the definition of the practice of medicine. (1973)

Board of Healing Arts

The MSMA opposes any legislation which would dilute the licensing power of the State Board of Registration for the Healing Arts to license those physicians of good ethical and moral character. (1975)

Chiropractic

It is the position of the medical profession that Chiropractic is an unscientific cult whose practitioners lack the necessary training and background to diagnose and treat human disease. Chiropractic constitutes a hazard to rational health care in the U. S. because of the substandard and unscientific education approach to disease causation. (1969)

Community Professional Directories

It is not unethical for a physician to authorize the listing of his name and practice in a directory for professional or lay use which is intended to list all physicians in the community on a uniform and non-discriminatory basis. The listing shall not include any self-aggrandizing statement or

qualitative judgment regarding the physician's skills or competence. The *American Medical Directory* provides an example of the kind of information that may be properly listed in national as well as community directories for health service personnel. Likewise, specialties or specialty practices used in the *American Medical Directory* should set the pattern for specialty designations. (1975)

Comprehensive Health Planning

All county medical societies are urged to take an active role in areawide CHP's by assigning a society member to be an official part of the agency. This member should make regular reports to the county and state societies on agency activities. (1974)

Confidentiality

The MSMA supports full confidentiality of patient record information provided by physicians, hospitals and other health care providers. (1975)

Death—Definition

A person shall be considered dead if in the announced opinion of a physician, based on ordinary standards of medical practice, he has experienced an irreversible cessation of spontaneous respiratory and circulatory functions. In the event that artificial means of support preclude a determination that these functions have ceased, a person shall be considered dead if in the announced opinion of a physician, based on ordinary standards of medical practice, he has experienced an irreversible cessation of spontaneous brain functions. Death shall have occurred at the time when the relevant functions ceased. (1976)

Drugs—Generic Prescribing

The MSMA opposes governmental interference into the practice of medicine through mandated generic prescribing of drugs. (1976)

Drugs—Use of Combination of

The Federal Food and Drug Administration should carefully study the prescribing habits of physicians before discontinuing a combination of drugs packaged together. (1974)

Drunk Drivers

The MSMA agrees to cooperate with the Legislature or proper agencies to remedy the dangerous problem of drunk drivers. (1974)

Education—Patient

The MCMA adopts the following guidelines for third party reimbursement for patient education:

1. The goal of patient education programs shall be to improve health and the delivery of health care services through cooperative efforts of informed patients and health professionals.
2. Patient education programs shall be provided under the guidance of an educational committee comprised of members of the health professions, and administration, and consumers.
3. Patient education committees will be responsible for the establishment, maintenance, and evaluation of all patient education programs.
4. Patient education services shall consist of planned efforts, with stated goals and objectives, based upon identifiable needs of patients and the resources of the health professionals.
5. Patient education services shall be provided under the direction of a practicing physician and a trained educator and must be appropriate to the immediate health needs of the patient.
6. Participation in such programs shall be by prescription of a practicing physician and shall be documented in the patient's chart. (1975)

Education—School Health

Factual, academically founded courses should be developed and implemented by the Missouri Department of Education to teach human physiology and pathophysiology at the elementary and secondary levels of the school system. (1974)

County medical societies are urged to work with local school districts to assist in providing comprehensive health education programs and the state colleges of Missouri are urged to prepare qualified health instructors trained to inte-

grate health concepts into all the courses they teach. (1972)

Fireworks

The MSMA supports a ban on the sale of fireworks in Missouri. (1976)

Fluoridation

The MSMA, realizing the medical importance of natural occurring fluorine taken in proper concentration into the human body, recommends the adding of fluorine to all drinking water systems in Missouri in the concentration of one part per million. (1972)

Home Health Care

The concept of home health care and visiting nurses care as a proper and economical way to bring quality health care to Missouri citizens not requiring more expensive and acute care is favored by the Association. (1972)

Hospital—Preadmission Certification

The MSMA will continue to oppose implementation of hospital preadmission certification. (1974)

Insurance—Charge for Extra Claim Forms

Physicians should feel free to charge for the additional service of filing more than one insurance claim form, especially if a different claim form is required rather than a photocopy of the original claim form. (1973)

Insurance—Maternity Coverage

The MSMA supports inclusion in all insurance policies for those in childbearing years of a clause providing complete maternity coverage.

In order to provide continuity of coverage, the following eligibility period should be written into all insurance policies concerning benefits for obstetric care: "A pregnancy which begins while the insurance is in force should be covered until the termination of the puerperium and until the newborn infant is discharged from the hospital to home care." (1974)

Insurance—Mental Illness

The MSMA supports a state health insurance act which would require minimum inpatient and outpatient mental health benefits in all health insurance policies issued in Missouri. (1974)

Licensing—Felon

As a general rule, the MSMA opposes the granting of a license to practice medicine to any physician who has been convicted of a felony. (1973)

Licensing—FGMs

The MSMA endorses the policy of accepting the "Fifth Pathway" for physician licensure in Missouri. (1975)

Medical Examiner System

The establishment of the county medical examiner system as a replacement for the county coroner system is strongly recommended. (1971)

National Health Insurance

Any system of national health insurance must be designed with the consultation and aid of practicing physicians with the welfare of the patient as the guiding principle. A mechanism should be provided so the patient realizes the value of medical services to the point of real participation in the payment for those services. (1974)

The MSMA endorses the American Medical Association's "Medicredit Bill" as the national health insurance plan best suited to maintaining the high quality of American Medicine. (1973)

Osteopaths—Association With

Medical doctors may consult or associate with Doctors of Osteopathy and participate in post-graduate education specifically designed for their needs. (1965)

Osteopaths—Membership

Both local and state medical societies may accept for full membership osteopathic physicians who are licensed to practice medicine in Missouri. (1970)

Physician Assistants

The use of physician assistants by primary physicians and the use of specialty assistants, trained under guidelines of their respective specialties, is favored where the use of such assistants will greatly increase the availability and quality of medical care. The MSMA encourages the development of training programs for physician assistants under guidelines of accreditation as prepared by the AMA and favors passage of such legislation which will place control of physician assistants under the Missouri Board of Healing Arts. (1972)

PSRO

THE MSMA recommends a two-year trial period for PSRO in government-owned and operated

hospitals before the law is applied to the private sector. A report on the benefits derived and the problems encountered would be made following the trial period. (1975)

If the Department of Health, Education and Welfare fails to return control of PSRO to the local level, the MSMA will promote non-participation by physicians, take appropriate legal action and, if these actions are unsuccessful, will work for the repeal of Public Law 92-603. (1975)

Regional Medical Program

The Federal Regional Medical Program is recognized as an effective force responsible to the private sector of the health care system for improved health care. (1973)

Seat Belts

The MSMA favors passage of state laws requiring use of seat belts in motor vehicles. (1974)

Unpaid Accounts—Interest

It is not in the best interest of the public or the profession to charge interest on an unpaid bill or note for professional services not paid within a prescribed period of time nor is it proper to charge a patient a flat collection fee if it becomes necessary to refer the account to an agency for collection.

It is not improper, however, for a physician to add a service charge, equal to the actual cost of rebilling, on accounts not paid within a reasonable time. Patients must be notified in advance about the existence of this practice. (1975)

Utilization Review—Participation

The MSMA supports the right of individual physicians voluntarily to elect not to participate in governmental review programs which they believe conflict with the principles of good medical practice when they have no contractual or ethical obligation to such program. (1976)

Utilization Review—Reimbursement

In those hospitals which conduct utilization review of any inpatient care, compensation of physicians for such review is a legitimate expense. The cost of such review should be included in hospital rates and reimbursable costs regardless of the source of payment. (1976)

(If you have questions on these or other policy matters, please contact the Missouri State Medical Association, Box 1028, Jefferson City, Mo. 65101. Tel.—(314) 636-5151)

*"Without your help
... I simply
would not have made it
through medical school"*

(The following letter was received from a physician who, as a student, received financial assistance from the Missouri State Medical Association members who have contributed to the Missouri State Medical Foundation. It is printed with his permission.)

Dear Doctor:

"Thank you very much for your thoughtful letter concerning receipt of my final payment on my medical student loan.

"I can well remember the feeling of destitution associated with being a reasonably good student but lacking funds with which to enroll for the next semester in medical school. Having always been, perhaps, more than adequately endowed with pride, it was a lesson in discipline and humility to go seeking financial assistance. However, the effort brought me in contact with some very nice people who really do a lot to keep one's faith in human nature alive.

"I sincerely appreciate the efforts which you and others put into the Missouri State Medical Foundation and all other student loan funds. You should feel a quiet heroism for the assistance you lend to needy students . . . without your help, I simply would not have made it through medical school."

The Missouri State Medical Foundation—MSMF—was created by the Missouri State Medical Association for the express purpose of giving financial assistance to deserving young Missourians who will be tomorrow's doctors.

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119th MSMA Annual Session
April 14-17, 1977 St. Louis

Both often



Predominant
psychoneurotic
anxiety

Associated
depressive
symptoms

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Tension and anxiety states; somatic complaints which are concomitants of emotional factors; psychoneurotic states manifested by tension, anxiety, apprehension, fatigue, depressive symptoms or agitation; symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in skeletal muscle spasm due to reflex spasm to local pathology, spasticity caused by upper motor

neuron disorders, athetosis, stiff-man syndrome, convulsive disorders (not for sole therapy).

Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma; may be used in patients with open angle glaucoma who are receiving appropriate therapy.

Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive dis-

orders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms (similar to those with barbiturates and alcohol) have occurred following abrupt discontinuance (convulsions, tremor, abdominal and muscle cramps, vomiting and sweating). Keep addiction-prone individuals under careful

respond to one

According to her major symptoms, she is a psychoneurotic patient with severe anxiety. But according to the description she gives of her feelings, part of the problem may sound like depression. This is because her problem, although primarily one of excessive anxiety, is often accompanied by depressive symptoms. Valium (diazepam) provides relief for both—as excessive anxiety is reduced, the depressive symptoms associated with it are also relieved.

There are other advantages in using Valium for the management of psychoneurotic anxiety with secondary depressive symptoms: the psychotherapeutic effect of Valium is pronounced and rapid. This means that improvement is usually apparent

in the patient within a few days rather than in a week or two, although it may take longer in some patients. In addition, Valium (diazepam) is generally well tolerated; as with most CNS-acting agents, caution patients against hazardous occupations requiring complete mental alertness.

Also, because the psychoneurotic patient's symptoms are often intensified at bedtime, Valium can offer an additional benefit. An *h.s.* dose added to the *b.i.d.* or *t.i.d.* treatment regimen can relieve the excessive anxiety and associated depressive symptoms and thus encourage a more restful night's sleep.



Valium[®]
(diazepam) [Ⓢ]

2-mg, 5-mg, 10-mg scored tablets

in psychoneurotic
anxiety states
with associated
depressive symptoms

caution because of their predisposition to habituation and dependence. In pregnancy, lactation or women of child-bearing age, weigh potential benefit against possible hazard.

Precautions: If combined with other psychotropics or anticonvulsants, consider the full pharmacology of agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate sedation. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies.

Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle

spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.



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Missouri Medicine

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MSMA



NEWS ROUND - UP

August, 1976

Dr. Ritter elected AMA Trustee

Hubert A. Ritter, M.D., of St. Louis, was elected to the AMA Board of Trustees at the 1976 AMA Annual Convention in Dallas, Tex., on July 1.

Also at the meeting, Joseph M. White, M.D., of Columbia, was re-

elected to his third term on the AMA Council on Medical Education. Dr. White is serving as chairman of the Council this year.

Dr. White has been Provost for Health Affairs at the University of Missouri-Columbia since 1973. He has served the AMA in many capacities including the chairmanship of the Liaison Committee on Medical Education.

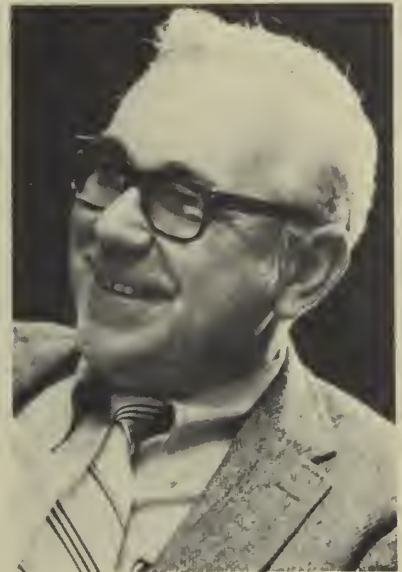
Dr. Ritter, who became a Missouri Delegate to the AMA in 1973, was one of four Trustees elected in a five-man race. He is the first MSMA member to serve on the AMA Board since Dr. James R. McVay of Kansas City, who served from 1952 to 1957.

Dr. Ritter received his M.D. degree from St. Louis University in 1951 and completed his internship and residency there in 1953. Following Navy duty, he founded Ritter Obstetrical and Gynecological Associates, Inc., a four-man group. He is an associate clinical professor of obstetrics-gynecology at St. Louis University School of Medicine.

Currently Vice President of the Missouri State Medical Association, Dr. Ritter is a past president of the St. Louis Medical Society. He has been chairman of the Missouri Medical Political Action Committee since 1973.



Hubert A. Ritter, M.D.



Joseph M. White, M.D.

Swine Flu project hits snags, keeps going

The proposed nationwide Swine Flu Immunization Program is continuing to run into legal snags, but preparations for implementation of the project are still underway.

Neither the federal Administration nor Congress has come up with satisfactory answers to the liability problems being encountered by vaccine manufacturers and physicians. Efforts in this area are continuing and President Ford has vowed that the government will find solutions to the liability problem so that the project can be carried out.

Meanwhile, the MSMA legal counsel is continuing to meet with Missouri governmental officials and other statewide health organizations in further attempts to obtain proper protection for state physicians if the project is conducted.

A spokesman for the Missouri Division of Health said the Division is proceeding with its plan to establish mechanisms in each Missouri county to provide Swine

Flu immunization to the bulk of the state population. He said the mechanism will be set up in time to receive the vaccine from the manufacturers in late August or early September. The spokesman added that if acceptable legal protections could not be developed by the government, the project will have to be scrapped. However, he emphasized that the mechanism should be available in case the legal problems are solved.

By this time, most local medical societies have been contacted by the Division in an effort to gain physician endorsement of a county-wide immunization program. If your society has not been contacted, call the special toll-free telephone number at the Division of Health, 800-392-8269.

The Division will continue to send the "Swine Flu Progress Report" to all physicians in Missouri. In addition, the MSMA offers its assistance to members if they will contact Headquarters.

Medical news in brief

Interim Session plans

Delegates and Alternate Delegates to the MSMA House of Delegates will receive an informational letter and a hotel Reservation Card in September in order to make arrangements to attend the first Interim Session of the House, Nov. 3-4, 1976, at Tan-Tar-A, Lake of the Ozarks.

The remainder of the MSMA membership will receive additional notification of the meeting. A clip-out Reservation Card to be used by other MSMA members desiring to attend the Session will be published in the September edition of MISSOURI MEDICINE. All members are invited to attend.

Unlike the Annual Session, the Interim Session will not include scientific sessions, concurrent meetings of state medical specialty societies or exhibits. The Interim Session will be limited to House of Delegates actions dealing with state and national legislation.

Resolutions to be introduced into the Interim Session must be sent to MSMA Headquarters at least 20 days preceding the meeting (Oct. 13, 1976). These resolutions will then be reproduced and mailed to Delegates prior to the Interim Session.

Conversion to computer

AMA computer experts spent the last week at MSMA Headquarters completing the first step in converting MSMA record-keeping from manual to data processing.

Much of the information in MSMA files is already on AMA master files, but final address changes and other material must be transferred to Chicago. It is hoped that the Missouri computer base will be completed in time for a membership mailing in late August.

The computer system should improve many services performed by MSMA Headquarters. The system will allow the Association to break down its membership by medical specialty, PAC members, Honorary members and other subdivisions. In addition, a system for recording continuing medical education of MSMA members is being considered for implementation.

A special meeting for County Medical Society Executives will be held in September to explain the new system in regard to dues billing. The MSMA Fieldman, Don Wilson, will contact Secretaries of the smaller medical societies to outline the system.

Identifiers opposed

At its Annual Convention in Dallas, held June 26-July 1, 1976, the AMA House of Delegates discussed the use of the Social Security number as a universal numbering identifier on hospital and medical records, and adopted Resolution 6, as follows:

*"RESOLVED, That the American Medical Association strongly opposes the use of any system of universal identifiers including the Social Security number; and be it further
"RESOLVED, That a copy of this resolution be directed to all state medical associations, all Professional Standards Review Organizations, and the Department of Health, Education, and Welfare."*

Licensing information

Missouri physicians will soon be receiving a copy of a Department of Health, Education and Welfare committee proposal dealing with health professional licensing.

The stated purpose of the proposal is to establish national certification criteria for licensed health providers. Currently, licensing criteria are developed by the individual states.

The Missouri Board of Registration for the Healing Arts is sending a copy of the proposal to physicians so that individual doctors can evaluate the information. Physicians can direct comments on the report to the Secretary of H.E.W.

The MSMA and AMA are currently studying the report before issuing comments to H.E.W.

Proposed amendments

Two proposed amendments to the MSMA Constitution will be considered at the 1977 Annual Session, April 14-17, in St. Louis. According to provisions in the Constitution, these proposed amendments must be published at least twice preceding the next Annual Session. (Note: These amendments will NOT be considered at the Interim Session.)

The first proposed change would add Vice Councilors to the list of officers elected to serve the MSMA. Article VII, Section 2 of the Constitution would be amended to read: (new language underlined)

"All officers except Councilors and Vice-Councilors shall be elected annually. The terms of Councilors and Vice-Councilors shall be two years. Half of the membership of the Council shall be elected each year. The Secretary and the Treasurer shall be elected by the Council. The delegates present from each Councilor District shall meet prior to the last day of the Annual Session and elect the Councilor and Vice-Councilor from that district. In the event of death, resignation or removal of any Councilor, the Vice-Councilor shall automatically fill the vacancy. All of the officers shall serve until their successors are elected and installed."

The second proposed change calls for an Interim Session to be held each year in addition to the Annual Session. Article VI, Section 1 of the Constitution would be amended to read: (new language underlined)

"The Association shall hold an annual Spring session and an interim Fall session of the House of Delegates, at places fixed by the House of Delegates, the time of which shall be fixed by the Council."

Medicaid survey

Over 800 MSMA members have returned questionnaires dealing with the Missouri Medicaid program, which were mailed to the membership last month.

The U.S. General Accounting Office requested the survey to determine Missouri physicians' opinions of Medicaid. The GAO is to compile the questionnaire answers and the results will be published in MISSOURI MEDICINE.

Famous Fighters



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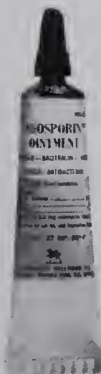
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Each gram contains: Aerosporin® brand Polymyxin B Sulfate 5,000 units; zinc bacitracin 400 units; neomycin sulfate 5 mg (equivalent to 3.5 mg neomycin base); special white petrolatum qs in tubes of 1 oz and 1/2 oz and 1/32 oz (approx.) foil packets.

INDICATIONS: Therapeutically (as an adjunct to systemic therapy when indicated) for topical infections, primary or secondary, due to susceptible organisms, as in: • infected burns, skin grafts, surgical incisions, otitis externa • primary pyoderma (impetigo, ecthyma, sycosis vulgaris, paronychia) • secondarily infected dermatoses (eczema, herpes, and seborrheic dermatitis) • traumatic lesions, inflamed or suppurating as a result of bacterial infection.

Prophylactically, the ointment may be used to prevent bacterial contamination in burns, skin grafts, incisions, and other clean lesions. For abrasions, minor cuts and wounds accidentally incurred, its use may prevent the development of infection and permit wound healing. **CONTRAINDICATIONS:** Not for use in the eyes or external ear canal if the eardrum is perforated. This product is contraindicated in those individuals who have shown hypersensitivity to any of the components.

WARNING: Because of the potential hazard of nephrotoxicity and ototoxicity due to



neomycin, care should be exercised when using this product in treating extensive burns, trophic ulceration and other extensive conditions where absorption of neomycin is possible. In burns where more than 20 percent of the body surface is affected, especially if the patient has impaired renal function or is receiving other aminoglycoside antibiotics concurrently, not more than one application a day is recommended. **PRECAUTIONS:** As with other antibacterial preparations, prolonged use may result in overgrowth of nonsusceptible organisms, including fungi. Appropriate measures should be taken if this occurs. **ADVERSE REACTIONS:** Neomycin is a not uncommon cutaneous sensitizer. Articles in the current literature indicate an increase in the prevalence of persons allergic to neomycin. Ototoxicity and nephrotoxicity have been reported (see Warning section).

Complete literature available on request from Professional Services Dept. PML.



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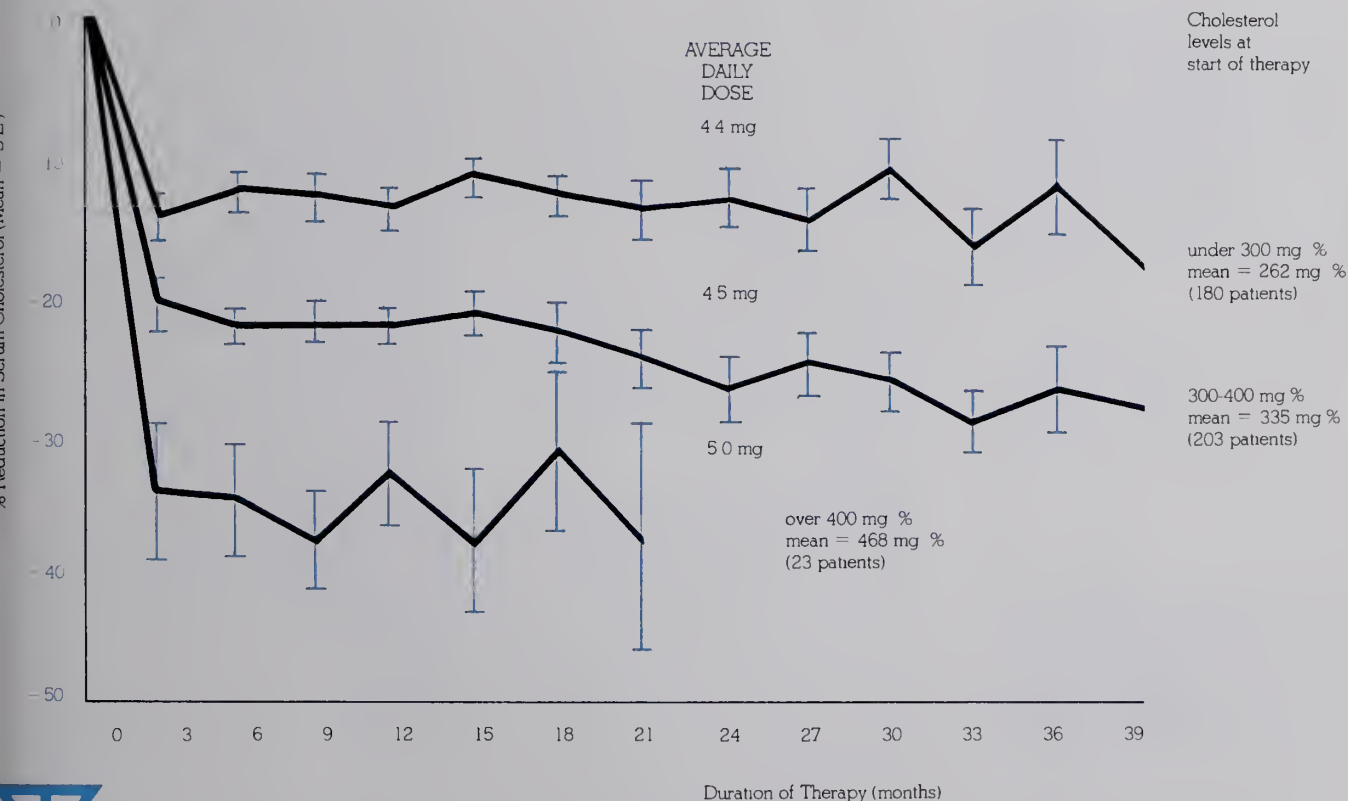
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AN IMPORTANT NOTE:

It has not been established whether the drug-induced lowering of serum cholesterol or lipid levels has a detrimental, beneficial, or no effect on the morbidity or mortality due to atherosclerosis or coronary heart disease. Several years will be required before current investigations will yield an answer to this question.

CHOLOXIN (Sodium Dextrothyroxine) is a thyroid analogue which effectively lowers elevated serum cholesterol 15 to 35% (see chart below) in low density lipoproteins.

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NOTE:

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CHOLOXIN[®] (sodium dextrothyroxine) Single-Tablet-A-Day Dosage Schedules

See prescribing information in package insert reproduced below

	Starting Dosage	Increased Monthly by	Usual Maintenance	Maximal Recommended
Adult Hypercholesterolemic	1.0-2.0 mg	1.0-2.0 mg	4.0-8.0 mg	4.0-8.0 mg
Pediatric Hypercholesterolemic	0.05 mg /kg body weight	0.05 mg /kg	0.1 mg /kg body weight	4.0 mg
Hypothyroid Cardiac	0.5-1.0 mg	1.0 mg	4.0 mg	4.0 mg

Description

CHOLOXIN (sodium dextrothyroxine) is the sodium salt of the dextrorotatory isomer of thyroxine. It is chemically described as D-3,5,3',5'-tetraiodothyronine sodium salt.

Actions

The predominant effect of CHOLOXIN (sodium dextrothyroxine) is the reduction of serum cholesterol levels in hyperlipidemic patients. Beta lipoprotein and triglyceride fractions may also be reduced from previously elevated levels.

Most of the available evidence indicates that CHOLOXIN stimulates the liver to increase catabolism and excretion of cholesterol and its degradation products via the biliary route into the feces. Cholesterol synthesis is not inhibited and abnormal metabolic end-products do not accumulate in the blood.

Indications

This is not an innocuous drug. Strict attention should be paid to the indications and contraindications.

CHOLOXIN (sodium dextrothyroxine) is an antilipidemic agent used as an adjunct to diet and other measures for the reduction of elevated serum cholesterol (low density lipoproteins) in euthyroid patients with no known evidence of organic heart disease.

The drug is also indicated in the treatment of hypothyroidism in patients with cardiac disease who cannot tolerate other types of thyroid medication.

Before prescribing, note the following: Results from a randomized clinical study have indicated a possible adverse effect when CHOLOXIN (sodium dextrothyroxine) is administered to a patient receiving a digitalis preparation. There may be an additive effect. This additive effect may possibly stimulate the myocardium excessively in patients with significant myocardial impairment. CHOLOXIN (sodium dextrothyroxine) dosage should not exceed 4 mg per day when the patient is receiving a digitalis preparation concomitantly. Careful monitoring of the total effect of both drugs is important.

It has not been established whether the drug-induced lowering of serum cholesterol or lipid levels has a detrimental, beneficial, or no effect on the morbidity or mortality due to atherosclerosis or coronary heart disease. Several years will be required before current investigations will yield an answer to this question.

Contraindications

The administration of CHOLOXIN (sodium dextrothyroxine) to euthyroid patients with one or more of the following conditions is contraindicated:

1. Known organic heart disease including angina pectoris, history of myocardial infarction, cardiac arrhythmia or tachycardia, either active or in patients with demonstrated propensity for arrhythmias, rheumatic heart disease, history of congestive heart failure, and decompensated or borderline compensated cardiac status.
2. Hypertensive states (other than mild labile systolic hypertension).
3. Advanced liver or kidney disease.
4. Pregnancy.
5. Nursing mothers.
6. History of iodism.

Warnings

CHOLOXIN (sodium dextrothyroxine) may potentiate the effects of anticoagulants on prothrombin time. Reductions of anticoagulant dosage by as much as 30% have been required in some patients. Consequently, the dosage of anticoagulants should be reduced by one-third upon initiation of CHOLOXIN (sodium dextrothyroxine) therapy and the dosage subsequently readjusted on the basis of prothrombin time. The prothrombin time of patients receiving anticoagulant therapy concomitantly with CHOLOXIN (sodium dextrothyroxine) therapy should be observed as frequently as necessary, but at least weekly, during the first few weeks of treatment.

In the surgical patient it is wise to consider withdrawal of the drug two weeks prior to surgery if the use of anti-coagulants during surgery is contemplated.

When CHOLOXIN (sodium dextrothyroxine) is used as thyroid replacement therapy in hypothyroid patients with concomitant coronary artery disease (especially those with a history of angina pectoris or myocardial infarction) or other cardiac disease, treatment should be initiated with care. Special consideration of the dosage schedule of CHOLOXIN (sodium dextrothyroxine) is required. This drug may increase the oxygen requirements of the myocardium, especially at high dosage levels. Treated subjects with coronary artery disease must be seen at

frequent intervals. If aggravation of angina or increased myocardial ischemia, cardiac failure, or clinically significant arrhythmia develops during the treatment of hypothyroid patients, the dosage should be reduced or the drug discontinued.

Special consideration must be given to the dosage of other thyroid medications used concomitantly with CHOLOXIN (sodium dextrothyroxine). As with all thyroid-active drugs, hypothyroid patients are more sensitive to a given dose of CHOLOXIN (sodium dextrothyroxine) than euthyroid patients.

Epinephrine injection in patients with coronary artery disease may precipitate an episode of coronary insufficiency. This condition may be enhanced in patients receiving thyroid analogues. These phenomena should be kept in mind when catecholamine injections are required in sodium dextrothyroxine-treated patients with coronary artery disease.

Since the possibility of precipitating cardiac arrhythmias during surgery may be greater in patients treated with thyroid hormones, it may be wise to discontinue CHOLOXIN (sodium dextrothyroxine) in euthyroid patients at least two weeks prior to an elective operation. During emergency surgery in euthyroid patients, and in surgery in hypothyroid patients in whom it may not be advisable or possible to withdraw therapy, the patients should be carefully observed.

There are reports that sodium dextrothyroxine in diabetic patients is capable of increasing blood sugar levels with a resultant increase in requirements of insulin or oral hypoglycemic agents. Special attention should be paid to parameters necessary for good control of the diabetic state in dextrothyroxine-treated subjects and to dosage requirements of insulin or other antidiabetic drugs. If sodium dextrothyroxine is later withdrawn from patients who required an increase of insulin (or oral hypoglycemic agents) dosage during its administration, the dosage of antidiabetic drugs should be reduced and adjusted to maintain good control of the diabetic state.

When either or both impaired liver or kidney function are present, the advantages of CHOLOXIN (sodium dextrothyroxine) therapy must be weighed against the possibility of deleterious results.

Usage in Women of Childbearing Age

Women of childbearing age with familial hypercholesterolemia or hyperlipemia should not be deprived of the use of this drug; it can be given to those patients exercising strict birth control procedures. Since pregnancy may occur despite the use of birth control procedures, administration of CHOLOXIN (sodium dextrothyroxine) to women of this age group should be undertaken only after weighing the possible risk to the fetus against the possible benefits to the mother. Teratogenic studies in two animal species have resulted in no abnormalities in the offspring.

Precautions

It is expected that patients on dextrothyroxine therapy will show greatly increased serum protein-bound iodine levels. These increased serum PBI values are evidence of absorption and transport of the drug and should NOT be interpreted as evidence of hypermetabolism. Similarly, they may not be used for titrating the effective dose of CHOLOXIN (sodium dextrothyroxine). PBI values in the range of 10 to 25 mcg% in treated patients are common. If signs or symptoms of iodism develop during CHOLOXIN (sodium dextrothyroxine) therapy, the drug should be discontinued.

A few children with familial hypercholesterolemia have been treated with CHOLOXIN (sodium dextrothyroxine) for periods of one year or longer with no adverse effects on growth. However, it is recommended that the drug be continued in patients in this age group only if a significant serum cholesterol-lowering effect is observed.

Adverse Reactions

The side effects attributed to dextrothyroxine therapy are for the most part due to increased metabolism and may be minimized by following the recommended dosage schedule. Adverse effects are least commonly seen in euthyroid patients with no signs or symptoms of organic heart disease; the incidence of adverse effects is increased in hypothyroid patients and is highest in those patients with organic heart disease superimposed on the hypothyroid state.

In the absence of known organic heart disease, some cardiac changes may be precipitated during sodium dextrothyroxine therapy. In addition to angina pectoris, arrhythmia consisting of extrasystoles, ectopic beats, or supraventricular tachycardia, ECG evidence of ischemic

myocardial changes and increase in heart size have been observed. Myocardial infarctions, both fatal and non-fatal, have occurred, but these are not unexpected in untreated patients in the age groups studied. It is not known whether any of these infarcts were drug related.

Changes in clinical status that may be related to the metabolic action of the drug include the development of insomnia, nervousness, palpitations, tremors, loss of weight, lid lag, sweating, flushing, hyperthermia, hair loss, diuresis, and menstrual irregularities. Gastrointestinal complaints during therapy have included dyspepsia, nausea and vomiting, constipation, diarrhea, and decrease in appetite.

Other side effects reported to be associated with CHOLOXIN (sodium dextrothyroxine) therapy include the development of headache, changes in libido (increase or decrease), hoarseness, tinnitus, dizziness, peripheral edema, malaise, tiredness, visual disturbances, psychic changes, paresthesia, muscle pain, and various bizarre subjective complaints. Skin rashes, including a few which appeared to be due to iodism, and itching have been attributed to dextrothyroxine by some investigators. Gallstones have been discovered in occasional dextrothyroxine-treated patients and cholestatic jaundice has occurred in one patient although its relationship to CHOLOXIN (sodium dextrothyroxine) therapy was not established.

In several instances, the previously existing conditions of the patient appeared to continue or progress during the administration of CHOLOXIN (sodium dextrothyroxine), a worsening of peripheral vascular disease, sensorium, exophthalmos, and retinopathy have been reported.

CHOLOXIN (sodium dextrothyroxine) potentiates the effects of anticoagulants, such as warfarin or Dicumarol, on prothrombin time, thus indicating a decrease in the dosage requirements of the anticoagulants. On the other hand, dosage requirements of antidiabetic drugs have been reported to be increased during dextrothyroxine therapy (see WARNINGS section).

Dosage and Administration

For adult euthyroid hypercholesterolemic patients, the recommended maintenance dose of CHOLOXIN (sodium dextrothyroxine) is 4 to 8 mg per day. The initial daily dose should be 1 to 2 mg to be increased in 1 to 2 mg increments at intervals of not less than one month to a maximum level of 4 to 8 mg daily, if that dosage level is indicated to effect the desired lowering of serum cholesterol.

When used as partial or complete substitution therapy for liothyroxine in hypothyroid patients with cardiac disease who cannot tolerate other types of thyroid medication, the initial daily dose should be 1 mg to be increased in 1 mg increments at intervals of not less than one month to a maximum level of 4 to 8 mg daily, preferably the lower dosage. The maximum in patients receiving digitalis therapy is 4 mg.

For pediatric hypercholesterolemic patients, the recommended maintenance dose of CHOLOXIN (sodium dextrothyroxine) is approximately 0.1 mg (100 mcg) per kilogram. The initial daily dosage should be approximately 0.05 mg (50 mcg) per kilogram to be increased in up to 0.05 mg (50 mcg) per kilogram increments at monthly intervals. The recommended maximal dose is 4 mg daily, if that dosage is indicated to effect the desired lowering of serum cholesterol.

If new signs or symptoms of cardiac disease develop during the treatment period, the drug should be withdrawn.

How Supplied

CHOLOXIN (sodium dextrothyroxine) is supplied in prescription packages of scored 1, 2, 4, and 6 mg tablets.

March 1975



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Special Feature

A Tribute to Missouri's Pioneer Doctors

By
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Columbia

The following is a transcript of the dedicatory address delivered by Dr. Cope at the official opening ceremony of the recently completed Medical Museum at Arrow Rock on May 30, 1976. Well-known for his interest in medical history, Dr. Cope presents a colorful review of that history relating to the Sante Fe Trail and Arrow Rock and the first physicians to practice in Missouri. It is to them that the Medical Museum is dedicated.

WE ARE HERE TODAY to dedicate a medical museum commemorating the frontier physician or the old-fashioned country doctor. It is most appropriate that we do this for we are honoring a breed of doctor who is gone. The country doctor has served his purpose, has left his footprints on the sands of time and has passed into legend or history with the passenger pigeon and the buffalo.

Here in Arrow Rock, a place that occupies a central point in the history of the West, it is most fitting that the pioneer doctor be remembered with his saddlebags, his liniment, his lancet, his pills, his small stock of knowledge and his large store of humanity. More than anything else, he was a comforter and counselor. His treatments were mostly ineffective and his cures were few, though there were notable exceptions as we will see.

No one knows when the first doctor came to Arrow Rock. But, if we use our imagination and put together a few of the facts that we know, it may be possible for us to guess what went on here long before the white man ever set foot in North America.

One evening several thousand years ago, there was a fire burning—about where we are now. Within the circle of firelight, a group of men were listening to their chief who spoke in guttural monosyllables and drew a rough map on the ground with the haft of his lance. It seems that a herd of mammoths were in the area. These men were planning to drive them off the cliff—right over there. The huge beasts would be killed or injured as they fell and could be easily butchered as they became mired in the marshland below the cliff face.

A scout, who had been following the animals,

came in with the news that they were no longer moving and had become quiet for the night. After a few more instructions, each man took a blazing torch from the fire and spread out to surround the quarry. Ung, U-N-G, for that was the leader's name, stationed himself on the cliff edge where he could stop the animals from making a last-minute turn to save themselves from the fall. It was the most critical and, also, the most dangerous place to be.

The men spread out forming a large half-circle facing the cliff and then, slowly started closing the ring. It was tricky work. The idea was to keep the animals moving slowly toward the brink without causing them to panic. When the ring was tight, the shouting would start stampeding the beasts to their destruction.

All went well. On a prearranged signal from Ung, the beaters started shouting and waving the torches. Most of the animals fell to their destruction. At the last minute, a young bull, sensing danger, turned at a right angle and headed directly toward Ung. In spite of Ung's yells and flaming torch, the bull swept past him and, with his trunk, sent Ung and his torch flying.

The torch fell over the cliff face and sputtered out in the marsh below. Ung landed in a thicket where he lay still until the crashing of the beast had died away. When he tried to get up, he found that his right leg would not support him. Lying alone in the darkness and being unable to move, he, perhaps, felt fear for he knew what would happen if he were found. This primitive society could not afford nonproducers or invalids. A sharp blow with a stone axe would end the suffering of the individual and a problem for the tribe. He had de-

livered such blows himself and expected nothing better. But, even for an old man (he was 35), life was still good.

All that night, he could hear the trumpeting of the injured mammoths and the yells of the tribesmen as they slaughtered, butchered and glutted themselves with meat. In the melee, he was not missed. Near dawn, when he had not come to his sleeping place in the cave, his consort realized that he had not been seen since the drive. The next morning, she and her eldest son secretly started searching for him. When they found him, his back was against a tree and he was fighting off the mosquitos that rose in gray clouds above the marshlands near the river even in those days. Ung's right leg was broken below the knee and was lying at an angle. The woman saw the injury and promptly straightened out the leg and turned the toe upward. When she released the foot, however, it again turned sideways and the leg angulated because of the spastic muscles. The boy broke a forked young sapling. Using strips of hide, they bound Ung's leg to the sapling and used the fork as a support to hold the foot upright. This gave the leg the appearance of being straight and the foot was in the right position.

For several weeks, Ung's consort brought food to him and stayed with him as long as she could without arousing the suspicion of the tribe. Because the skin had not been broken, Ung's leg healed quickly. The first doctor and the first nurse had come to Arrow Rock.

Centuries passed. In 1723, French cartographers noted the spot and recorded it. It was called Pierre de Fleche or Arrow Rock. The flint outcropping nearby supplied stone for the Indians to make into arrowheads, and there were clay deposits for making pipes.

Two groups of Ung's descendants were still in the area. One group of Indians were camped on ground across the river in what is now in Howard County and another camped in Tom's Hollow—up to the north.

By this time, one of Ung's descendants (probably through his eldest son, who had fixed his leg) was a full-time medicine man. It was this man's only duties to care for the health of the tribe and sit in council with the chief. He depended mostly on magic for his cures. Because of this, he came off, by and large, just as well as—if not a little bit better than—his European counterpart.

The medicine man's rattle, medicine pouch and incantations did little harm, but the purging, puking and bleeding of the white settlers frequently did

a lot of harm and, undoubtedly, caused unnecessary deaths in already weakened patients. For better or for worse, the medicine man moved westward and was replaced by the European frontier physician.

A book written by Dr. Thomas B. Hall of Arrow Rock entitled *Medicine on the Santa Fe Trail* gives a good picture of this physician in the shape of Dr. Tom Lester. Dr. Lester was born in the East, but he moved to this area after reading medicine for two years with his brother. This two-year apprenticeship was an acceptable way of becoming a doctor. His diploma was a certificate, certifying the time he spent studying and that the preceptee was qualified to practice medicine. Like many physicians of the day, he could not make a living by medicine alone. The doctors of that time also were farmers or traders for their chief source of income.

A "Doctor Pleasant Rose," who had participated in the slaughter at San Jacinto on April 21, 1836, returned to his farm on the Brazos River one Sunday morning. His daughter relates, "The first thing that father did after breakfast was to go to the cornfield. He had planted corn the first of March and it needed plowing. He didn't wait to put the house in order, but began to plow at once." He tackled the chores in high, good spirits. His daughter noted, "He said Texas was going to be a great nation."

Dr. Lester, himself, wanted to go to Santa Fe so he enlisted as a private in the Army. He kept a diary of his trip which makes interesting reading about how things were on the Santa Fe Trail. In one regiment, there was a mortality rate of about 10% during the trip to Santa Fe. Most of the deaths were due to typhoid fever. Injuries and wounds were of minimal importance. Later, Dr. Lester became a contract surgeon for the Regiment, making a salary of \$70 a month.

Whether as a private in the Army or a contract surgeon, there was very little that he could do. There were no specific remedies or treatments. The things that we take for granted were nonexistent. The stethoscope, invented in 1819, had not reached the frontier. X-ray, antibiotics and intravenous fluids were all far in the future. It was even difficult to get an accurate temperature reading. Today's Boy Scout knows more about first aid and a trained nurse could have worked miracles then.

The physician did have opium and the tincture of opium, called Laudanum, which was used profusely for the relief of pain. Unlike now, these narcotic preparations were available without prescription at any pharmacy. It was many years, however, before such a pharmacy came to Arrow Rock. What

these frontier physicians did have was compassion for the sick or injured and this was *the* characteristic on which the profession was built.

Dr. John Sappington was one of the earliest physicians. But, also, in Arrow Rock was Doctor Charles Bradford, who came from Pennsylvania. There were Dr. George Penn of Virginia and Dr. John Locke Hardiman and a Dr. William Price. The latter became one of Dr. Sappington's sons-in-law.

The homes of Bradford and Price have survived and can be seen today. In spite of the work of these men, health conditions in Arrow Rock were appalling in the early 1800s. A few instances recorded between 1804, when Lewis and Clark came up the river, and 1840 will let us know how bad things were. Eighty percent of a colony of settlers in Pike County died in the year of 1822. In 1829, Dr. McCullough, an expert on malaria wrote that "because of the disease, the Missouri River valley could never prosper. It is to be suspected that no changes and no cultivation will ever bring it into a state of salubrity." He was willing to consign the entire valley to limbo because of this disease. It would be another 50 years before the malarial parasite was found and the mosquito indicted as the carrier. There were many ghost settlements throughout the area because of the decimation of malaria.

Other diseases also took their toll. Typhoid fever and summer diarrhea were frequently fatal. One of the early managers of the Old Tavern in Arrow Rock was Mr. Tom Cobb. He and his wife lost their entire family of four children to the disease within an 11-month period. Even Dr. Sappington, himself, was unable to save the lives of the members of his own family.

One of the early Governors of Missouri, Claybourn Jackson, married three of Dr. Sappington's daughters. After the first two had died as young women, Mr. Jackson came back and asked Dr. Sappington for the hand of the third. Dr. Sappington is alleged to have replied, "Take her, Clayb, but don't come back for the old lady. She is all I've got left."

Even these conditions could not keep Arrow Rock from prospering. In 1817, a ferry was built to carry passengers across the river. It served for 110 years, until 1927. Because of this and because William Becknell's trail to Santa Fe, which started in Franklin and came through Arrow Rock, the place became a bustling community. It was platted as a town in 1829 and rechristened as New Philadelphia. The residents preferred the name of Arrow

Rock, however, so the New Philadelphia did not survive very long. Five years later, the Tavern was built and many famous men stayed there throughout the years. Washington Irving, Kit Carson and Sen. Thomas Hart Benton were a few of the guests. In view of the times, we can forgive the Tavern manager for his advertising "the finest Kentucky whiskey—uncontaminated, unadulterated, and untaxed." That was one happy state of affairs that did not persist into the 20th century.

It was about this time that Dr. Sappington found that Peruvian bark, the source of quinine, was a good treatment for malaria. One of the chronicles states that a flagon of Peruvian bark was kept in many households and the flagon was filled with whiskey. Each member of the family took a slug of this concoction every morning to ward off the ague. Apparently, it worked.

In the spring of the year after the floods, literally swarms of mosquitos would rise from the valley and attack any living thing. The relationship between malaria and swampy air had long been suspected. Even the name, "malaria," indicates bad air. The custom of closing all windows against the night air was a good hygienic practice. The fact that Ung and his followers slept in a smoky cave probably assured their survival.

Dr. Sappington knew that infusions of Peruvian bark would cure malaria, but he had difficulty selling the idea to his colleagues who believed strongly in the depletion theory of purging, puking and bleeding. Like many of their successors, they had trouble changing their way of thinking.

The active ingredient of the bark was soon discovered and a quinine factory to extract the ingredient was set up in Philadelphia, Pennsylvania. Dr. Sappington sent one of his sons to Philadelphia to buy 100 ounces of quinine. Through a misunderstanding, the son returned with 100 pounds or the entire supply in the United States. Some chroniclers would have us believe that Dr. Sappington started manufacturing his antimalarial pills to get rid of this expensive oversupply of quinine. Other more thoughtful historians discount both stories about the oversupply and the need for marketing it.

The fact is that when Dr. Sappington could not educate his medical colleagues, he knew he could reach many more sick people by selling the pills than he could by personal treatment. He worked out the dose of quinine to be one grain three times a day. This dosage scale has not been changed. His pills contained one grain of quinine with flavoring agents of licorice and sassafras.

Because they worked, these pills became an im-

mediate success, and Dr. Sappington was launched into a manufacturing and merchandising project that all but wiped out the dreaded malaria. It also made him wealthy, but we will forgive him for that. It was soon said that if the anti-fever pills did not cure the fever, it was not malaria. The importance of these pills to the general population could not be overestimated. In addition to the many deaths from malaria, everyone in the area had the disease in chronic form which sapped their strength and vitality and made life hardly worth living.

In Garrison's *History of Medicine*, we find an account of how things were before these antifever pills came into common use. Speaking of the area around Arrow Rock, he said "Newcomers to the area were easily spotted because they were bright-eyed, ruddy, active, and inclined to plumpness. But as for the settlers who suffered from chronic malaria, the salient physical type was pale, gaunt, haggard, attenuated, narrow-chested, sharp-featured, anxious-eyed, lantern-jawed with a furrowed brow and a pasty, sallow, bilious and dispeptic complexion. His womankind like himself, scrawny without incentive to display the meager charms concealed by ruffle and pantalet, had a forbidding countenance as if about to call the police."

We, in this day, are so accustomed to medicine that does what it is supposed to do that we cannot conceive of the joy to be felt when a chronically ill population could be returned to work. Needless to say, the Missouri Valley prospered at least to the degree that Dr. Sappington did. After he had proved his point that quinine cures malaria, he wrote a book, *The Theory and Treatment of Fevers*. It reveals that the main ingredient of his antifever pills was quinine. It was generally accepted as the treatment. His pill business withered as did the incidence of malaria. He left a trust fund of \$20,000 for the education of the deprived children of Saline County. It still exists and is being used.

When my father started to practice in 1902, he said that there were only two diseases he could cure. There was quinine for malaria and sulfur for the itch. These remained as the only specific treatments until salvarsan was introduced early in the 20th century.

With malaria conquered, Arrow Rock went on to become a bustling community and a center of culture. A few quotations from the *Marshall Democrat* of the year 1852 may give us some insight. Louis J. North's circus was coming to town and there had been some objection from the townspeople. These objections were quietened when North assured the

city fathers that the performance would be "chaste" and suitable for viewing by the women.

In July of that year, a Miss Moreau spoke on "Women's Duties." The reporter added the ungallant note, "We thank our stars that it is not incumbent on us to listen to it." Also during that year, the city council of Arrow Rock voted to widen the sidewalk to 16 feet. The awning posts were placed to divide the walk. "The inside track was appropriated to the ladies (God bless them) and their hoops (Dad-drat them) while the outside track was for marble playing or to switch we Lords of Creation onto while the hoops were passing by." This is a picture of a growing optimistic town that seemed to have a bright future.

If Sappington's pill affected many, then Arrow Rock has another medical story that is purely personal and has all the drama of a modern soap opera. This is related by Miss Nettie Morris Dickson of Arrow Rock:

A Jacob Shroyer had been through Arrow Rock with General Clark on his way to build Fort Osage. After his discharge, Jacob returned, built his house and raised his family on a place he called Shroyer's Point which overlooked a broad expanse of the river. As was the custom, his wife and daughters sold fresh produce to the crews and passengers of the passing boats that docked at the Landing. One of his daughters, Alice, possessed almost an ethereal beauty and was the favorite when she took her basket of eggs or garden vegetables aboard the packets.

One boat, the *Euphrasia*, with Michael O'Harra as Captain, stopped at Arrow Rock in 1838. It is said that when Captain Mike saw Alice, he was forced to look away because he could not believe anything so lovely could exist. But when he looked back, she was still there and more beautiful than ever.

During their courtship, Mike arranged a whistle signal that Alice might recognize even though the boat was as yet out of sight. The signal became very special to them. Needless to say, after hearing the signal, Alice was always waiting on the dock for her handsome Captain. They were married and moved to St. Louis, the home port of the *Euphrasia*. Frequently, Alice would ride up the river with her husband as far as Arrow Rock and visit her family while her husband completed his voyage and, then, would pick her up on his way back downstream.

In August, 1840, she made one of these stops and proudly announced that they were expecting their first child. Captain Mike started up-river. That evening, when his boat was near Carrollton,

one of the most violent storms of the century exploded over the river. The boat apparently was hit by lightning and blew up because no trace of crew or passengers was found

It was several days before word from Carrollton that the Euphrasia had blown up and all aboard had been killed reached Arrow Rock. Broken-hearted to the point of insanity, Alice O'Hara stayed with her parents. When her baby boy was born that fall, she called him Mike. Together, they spent many hours on the lookout watching the river boats go by.

Several days after the storm, Mr. Turpin, a farmer who lived near Carrollton, was walking along the river. He found an unconscious man pinned under a timber. His clothing had been mostly blown or burned away, and there was no way to identify him. The most serious injury seemed to be a "bluish" depressed area in the man's forehead where he had received a blow. Mr. Turpin carried the man to his home where he recovered physically, but was totally amnesic about his own identity or origin. The Turpins adopted him as a son, named him John and gave him a home where he lived as a member of the family.

In the summer of 1844, a medical student from Virginia visited the Turpins and became interested in John and his history. He persuaded John to return east with him. After much medical consultation, it was decided to do a trepanning operation and remove the depressed area of the skull. This was successfully done with the complete return of Captain Mike's memory. Communication was slow, but he started home to Arrow Rock as soon as he could travel. The boat ride from St. Louis to Arrow Rock must have seemed interminable.

Soon after passing Franklin, Captain Mike was standing in the wheelhouse with his hand on the whistle cord. Alice and her son were on the lookout. When she heard the signal repeated again and again, it was beyond belief. Still, the signal was real and the secret was known only to them. You can imagine better than I can tell what took place on the dock when Alice, Captain Mike and their son were reunited. The story states that they moved to St. Louis where they lived long and had many children. It also states that the graves of her father and mother can still be seen in Arrow Rock.

Even in that day, more than 100 years ago, medical miracles could sometimes happen. The reason is simple. All physicians, in one way or another, are frontier physicians. If they are not on the geographic frontier of an expanding nation, they may be on the technical frontier of doing things in a new and better way or the scientific frontier of new discoveries. So, in a sense, by paying homage here to the frontier doctor, we are paying homage to all doctors who accept the challenge—whether the call be of a geographic frontier of exploration or the scientific frontier of discovery.

Wherever the pioneers settled, there was a need for the frontier doctor. The doctor never failed to meet the challenge. His knowledge, limited though it was, was kept aflame by sharp intelligence and his ability to observe and make deductions. His skills, though meager, improved rapidly. Above all, his willingness to serve, his courage and his unbounded love for his fellow men have carved for him a singular niche in the history of this country. It is appropriate that he should be remembered here at Arrow Rock where he accomplished so much.



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Notes of interest from Here

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Dr. Doyle C. McCraw of Bolivar announced his retirement from active medical practice on July 1. Dr. McCraw has served the Bolivar community as a physician and civic leader for 40 years. He has served as mayor of Bolivar and was the city's official host at the Simon Bolivar statue dedication in 1948. He has been a strong supporter of medical education and is a Past-President of the Missouri State Medical Association and the Missouri Academy of General Practice. Dr. and Mrs. McCraw planned to travel this summer and visit their son, Dr. John McCraw, who is a plastic surgeon.

Dr. F. T. H'Doubler, Jr., Springfield, was elected Imperial High Priest and Prophet at the 102nd Imperial Council Session of the Shrine of North America of the international organization by the voting representatives of the 180 Shrine Temples in the United States, Canada, Mexico and the Panama Canal Zone. The election was held on July 7. A Past Potentate of Abou Ben Adhem Shrine Temple in Springfield, Dr. H'Doubler will become the Imperial Potentate of the one-million-member fraternal and philanthropic organization in 1980 if tradition is followed.

Dr. Richard A. Sutter, St. Louis, has been appointed by Gov. Christopher Bond to serve on the Governor's Advisory Council for Workmen's Compensation. The special council was established to inform the Governor of federal legislation and activities affecting Missouri's Workmen's Compensation System and for the preparation of acceptable Workmen's Compensation legislation to be presented to the General Assembly.

Dr. James G. Shea has been appointed city physician for Washington (Mo.) to replace **Dr. Samuel Bonney** who resigned from that post. Dr. Bonney has been appointed director of emergency services at St. Louis University Hospitals. A native of St. Louis, Dr. Bonney lives in Washington where he has been in the private practice of medicine for a number of years. He is director of emergency medical services for Franklin County and is a member of the advisory board of St. Francis Mercy Hospital.

Dr. Allen P. Klippel, director of emergency medical services for St. Louis, has resigned to devote full time to a program of residency training in emergency medicine and other academic pursuits. Dr. Klippel has a faculty appointment in the Department of Surgery at Washington University School of Medicine. He assumed the post as the city's first emergency services director in 1972.

Dr. James A. Kinder was honored on July 18 at a retirement ceremony marking 35 years of service with the U.S. Army and Naval Reserve Center in Cape Girardeau. Dr. Kinder has served as a medical officer at the center since 1952 when he was appointed lieutenant commander. He was promoted to captain in 1964. He graduated from Washington University School of Medicine in 1941 and served in the Army Medical Corps from 1942-1946.

in Brief

A summary of AMA, medical & health news

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The AMA told the federal Privacy Protection Study Commission that legislation to safeguard confidential health information is needed, but that legislation should be at the state rather than the federal level. The AMA said that federal legislation extending the Privacy Act of 1974 to the private health care sector would expand the potential for unjustified intrusion by the government upon the privacy of patients, would interfere in the patient-physician relationship and would not be in the interests of the patient. The commission held two days of hearings in Los Angeles in June. At the request of the commission, a copy of the AMA's model state bill was presented by Joseph F. Boyle, M.D., a member of the Board of Trustees. The AMA model bill would place reasonable restrictions on access to, use of and further distribution of confidential information by third parties, require written authorization for release and require establishment by third parties of minimal security procedures for safeguarding information after it is acquired.

1976-1977 AMA officers installed or elected at the Annual Convention include Richard E. Palmer, M.D., Alexandria, Va., president; John H. Budd, M.D., Cleveland, Ohio, president-elect; Francis T. Holland, M.D., Tallahassee, Fla., vice president; Tom E. Nesbitt, M.D., Nashville, Tenn., speaker of the House of Delegates; William Y. Rial, M.D., Swarthmore, Pa., vice speaker. Reelected to the Board of Trustees were Frank J. Jirka, M.D., Chicago, and Lowell H. Steen, M.D., Hammond, Ind. Elected to the Board were John J. Coury, M.D., Port Huron, Mich., and Hubert A. Ritter, M.D., St. Louis. Raymond T. Holden, M.D., Washington, D. C., was re-elected chairman of the Board of Trustees. Jere W. Annis, M.D., Lakeland, Fla., was re-elected vice chairman of the Board.

Six AMA awards were presented during the Annual Convention this year in Dallas. Claude E. Welch, M.D., on the staffs of the Harvard Medical School and Massachusetts General Hospital, received the Distinguished Service Award for con-

tributions to clinical practice as a physician, teacher and author. Alton I. Sutnick, M.D. dean of the Medical College of Pennsylvania, was awarded the Schwartz Award in Medicine. Dr. Sutnick established one of the first laboratories in the world for the study of surfactants. Howard A. Rusk, M.D., director of the Institute of Rehabilitation Medicine of the New York University Medical Center, received the \$10,000 Dr. Rodman E. Sheen and Thomas G. Sheen Award for his leadership in the organization, development and maturation of the specialty of rehabilitation medicine. The Scientific Achievement Award was presented to Harry Goldblatt, M.D., director of the L. D. Beaumont Memorial Research Laboratories of Mount Sinai Hospital, Cleveland. Charles E. Butterworth, Jr., M.D., director of the Nutrition Program of the University of Alabama in the Birmingham School of Medicine, received the Joseph B. Goldberger Award in Clinical Nutrition. The Citation of a Layman for Distinguished Service was awarded to Rep. Paul G. Rogers (D-Fla.).

The 1975-1976 editions of the Red and Blue Books, prepared by the AMA's Center for Health Services Research and Development, have recently been published. The Red Book, *Reference Data on Profile of Medical Practice, 1975-1976* (OP-463), provides data from the AMA Physician Masterfile and the Periodic Survey of Physicians and describes various characteristics of medical practice, including utilization of physicians' services, physicians' net income and expenses, physicians' fees and selected practice characteristics. The Blue Book, *Reference Data on Socioeconomic Issues of Health, 1975-1976* (OP-462), is a compilation of data describing selected socioeconomic characteristics of the U. S. health care delivery system, including characteristics of the U. S. population, financial characteristics of the health services delivery system and medical education and licensure in the U. S. Each book sells for \$4.50 or both may be purchased for \$8.50. To order, write Order Dept., AMA Headquarters.



RECENT CHANGES

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MAIL MAILgram (2)

THERE ARE A LOT OF PEOPLE GETTING BETWEEN YOU AND YOUR PATIENT.

Medicine today is in the spotlight, subjected to all kinds of scrutiny. Your control over patient therapy is being monitored, judged and occasionally abrogated, sometimes by unknown third parties.

The worry is that in the wake of this focus, the relationship between you and your patient will be weakened, without offsetting benefits. Consider three examples:

Drug substitution In most states, pharmacy laws, regulations or professional custom stipulate that your non-generic prescriptions be filled with the precise products you prescribe. But in the last five years, a dozen or more State laws have been changed, permitting the pharmacist in most cases to select a product of the same generic drug to fill any prescription.

Ironically, this dilution of physician control has taken place against a background of growing evidence that purportedly equivalent drug products may be inequivalent, since neither present drug standards nor their enforcement are optimal. In fact, the FDA itself says it does not enforce the same standards for hundreds of "follow-on" products that it had applied to the original FDA approvals. Thus physician control over patient therapy is being eroded with a risk that patients may be exposed to drugs of uncertain quality.

The major advertised claim for substitution is reduced prescription prices for consumers. Yet no documentation of any significant savings has been produced.

MAC Maximum Allowable Cost, MAC for short, is a Federal regulation designed to cut the Government's drug bill by setting price ceilings for drugs dispensed to Medicare and Medicaid patients. Unless the prescriber certifies on the prescription that a particular product is medically necessary, the Government intends to pay only the cost of the lowest-priced, purportedly-equivalent,

generally-available product. The effect of the program may be that elderly and indigent patients will be restricted to products which someone in Washington believes are priced right. Practicing doctors will have little to say about administration of the program, since Government will have absolute authority to make its choices stick.

The drug lag The future of drug and device research depends upon a scientific and regulatory environment that encourages therapeutic innovations. The American pharmaceutical industry annually is spending more than \$1 billion of its own funds and evaluating more than 1,200 investigational compounds in clinical research. Disease targets include cancer, atherosclerosis, viruses and central nervous system disorders, among others. But there is a major barrier to the flow of new drugs to your patients: The cost of the research is more than ten times what it was, per product, in 1962; and whereas governmental clearance of new drug applications took six months then, it commonly consumes two years now.

The FDA needs adequate time, of course, to consider data. But it is equally clear that the present approval process contributes to needless delay of needed therapy. That's why the increased efficiency of the drug approval process is vital to all our futures.

If these issues concern you, we suggest that you make your voice heard—among your colleagues and your representatives in State legislatures and in Washington.

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Missouri Medicine

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GARY F. LOCKWOOD, M.D. and
ROBERT L. NEWMAN, M.D., *Kansas City*

Estriol Determinations in Insulin-Dependent Diabetes in Pregnancy

PREGNANCY, when complicated by overt diabetes mellitus, continues to represent one of the more challenging clinical situations presented to the obstetrician of today. The management of the pregnant diabetic patient has become relatively well established and is based upon strict diabetic control, appropriate timing of delivery and improved care of the newborn infant. However, significant improvement in the overall perinatal mortality of such pregnancies has not occurred. Generally, perinatal mortality statistics for the insulin-dependent diabetic patient remain excessive despite aggressive management. One attempt at further reduction in perinatal mortality has been directed toward the hormonal assessment of such pregnancies.

Quantitative assay of urinary estriol appears to be a reliable index as to fetoplacental function.¹ Opinions remain somewhat divided as to the value of urinary estriol evaluations in the management of the diabetic pregnancy.¹⁻⁹ Clinical trials have demonstrated that estriol excretion may drop precipitately in diabetic pregnancies¹ and that a delay in the recognition of this occurrence will result in delay in the treatment or termination of the pregnancy at a time when the distressed infant can least afford such a delay. Because of this, one particular criticism offered by several investigators and clinicians has been that a delay of at least 24 hours in obtaining the estriol value is present when the 24-hour urine sample collection is used for the estriol determination.

Most investigators currently support the view

that estriol determinations are of value in the pregnant, overt, diabetic patient, and that frequent or daily estriol determinations are required after the 34th week of gestation.^{3, 7-9} This retrospective clinical study reports the results and estriol patterns observed in the overt, insulin-dependent diabetic pregnancies during the period from July, 1970 to July, 1975 at this institution.

MATERIALS AND METHODS

Urinary estriol determinations were made available by the hormone laboratory in 1970. Initially, the laboratory utilized the 24-hour urine collection as the method of sample collection. Obvious difficulties were inherent with that procedure. Since late 1970, all estriol determinations have been performed on random, maternal urine specimens with estriol analysis performed by rapid gas chromatog-

Although the management of pregnant diabetic patients has become relatively well established, significant improvement in the overall perinatal mortality of such pregnancies has not occurred. This attempt at further reduction in perinatal mortality has been directed toward the hormonal assessment in such pregnancies. The authors are from St. Luke's Hospital. This work was supported by St. Luke's Hospital Foundation for Medical Education and Research.

TABLE 1

45 DIABETIC PATIENTS (52 PREGNANCIES)

	White's Classification			
	B	C	D	F
Number of patients	21	15	9	0
Number of pregnancies	24	17	11	0

raphy.¹⁰ The excretion rates of estriol and creatinine in late pregnancy bear a constant relationship throughout a 24-hour period. When estriol is expressed as milligrams of estriol per gram of creatinine, an accurate, reliable value as to the fetoplacental unit is obtained.¹¹⁻¹⁶ All estriol values are expressed as milligrams of estriol per gram of creatinine.

Included in this study are 45 pregnant diabetic patients who were delivered of a total of 52 pregnancies at this institution. All subjects were insulin-dependent, diabetic patients, White's classes B, C, and D.¹⁷ Each patient had at least five consecutive random, urinary estriol determinations.

Patients were managed by both the attending staff and House Staff, with the first estriol determination usually being performed during the 32nd gestational week. Subsequent estriol determinations were performed with increasing frequency as each pregnancy progressed and minimally bi-weekly estriol determinations were made until the 35th gestational week, at which time a more frequent or daily estriol assay was continued. Unless additional maternal complications or an estriol value of less than 10 mg estriol per gram of creatinine or a 50% drop from the previous recent estriol study occurred, the pregnancy was allowed to continue until fetal maturity could be demonstrated. When maternal indications developed or an abnormal estriol value was obtained, the patient was hospitalized, evaluated and treated medically until fetal maturity was established. If fetal maturity was present, the patient was delivered of her infant without delay.

TABLE 2

ESTRIOL VALUES IN 52 DIABETIC PREGNANCIES
(45 PATIENTS)

	White's Classification			
	B	C	D	F
Normal estriol values in 41 pregnancies (34 patients)	22	11	8	0
Abnormal estriol values in 11 pregnancies (11 patients)	2	6	3	0

TABLE 3

INDICATIONS FOR HOSPITALIZATION
(36 DIABETIC PREGNANCIES)

	Normal Estriol Values	Abnormal Estriol Values
Diabetic control and management	18	8
Pre-eclampsia	5	4
Clinically significant polyhydramnios	0	1

RESULTS

Within the study group, a total of 45 insulin-dependent, pregnant diabetic patients received random urinary estriol assays with seven of these patients having two pregnancies within this time period. White's classification of these patients is demonstrated in Table 1. A total of 52 separate pregnancies were reviewed, and fetal outcome demonstrated 46 viable infant deliveries, five intrauterine fetal deaths and one neonatal death. There were no stillbirths occurring with normal estriol values, and each intrauterine death demonstrated at least one estriol value below 10 mg of estriol per gram of creatinine.

Normal estriol levels were observed in 41 of the 52 pregnancies or 78.8% of the study population. All 41 pregnancies showed estriol values greater than 10 mg of estriol per gram of creatinine and no 50% decreases in estriol excretion occurred during their gestations. The distribution of the estriol values in these 41 pregnancies was similar to the estriol distribution of normal pregnant patients. No distinction could be made between the normal patient's estriol pattern and these 41 diabetic pregnancies.

Table 2 shows White's Classification of the 34 diabetic patients who were delivered of 41 pregnancies. Abnormal estriol values (values of less than 10 mg of estriol per gram of creatinine or a 50% drop from the previous recent estriol assay after the 32nd gestational week) were recorded in 11 of the 52 pregnancies or 21.2% of the study population. All 11 pregnancies showed at least one abnormal estriol determination after the 34th week of gestation. White's Classification of these 11 diabetic patients who were delivered of 11 pregnancies also is shown in Table 2.

Early hospitalization was required in 23 of these diabetic pregnancies demonstrating normal estriol values. The indications for hospital admission are shown in Table 3. Following treatment, 14 patients were dismissed and allowed to continue their gesta-

TABLE 4
METHOD OF DELIVERY—52 DIABETIC
PREGNANCIES

	Normal		Abnormal	
	Estriol Values		Estriol Values	
	LIVE BIRTHS	STILL- BIRTHS	LIVE BIRTHS	STILL- BIRTHS
Successful oxytocin induction	8	0	1	4
Primary cesarean section	12	0	2	0
Repeat cesarean section	21	0	3*	1†
Total	41	0	6	5

* One neonatal death included.

† Hysterectomy in patient with previous cesarean section.

tions until a later date. Nine patients were delivered following medical management at the time of initial hospitalization. As seen in the normal estriol group, additional maternal complications occurred in the 11 abnormal estriol pregnancies and required 13 separate hospitalizations.

Table 4 shows the method of delivery and fetal outcome for the 52 diabetic pregnancies. Fetal outcome in the 11 patients with abnormal estriol assays demonstrated six live births with one neonatal death. All 11 diabetic patients were hospitalized and evaluated as soon as the estriol fall was noted. In eight of these diabetic pregnancies, a significant fall was observed to have occurred within 24 to 72 hours of a previous normal estriol value. Prior to the significant fall, all estriol determinations in these eight pregnancies had been in the accepted normal range of estriol excretion and had demonstrated no "clinically significant" declining estriol values. Of these eight pregnancies, viable infants were delivered within 12 hours of hospitalization for three patients while in five patients, prior fetal death had occurred. In one instance of fetal death in utero, severe congenital anomalies were considered to have been the cause of the infant's death.

In the three remaining diabetic patients of the 11 patients demonstrating abnormal estriol values, estriol excretion decreased approximately 50% from the previous recent estriol assay but did not fall below a level of 10 mg of estriol per gram of creatinine. Soon after hospital admission, these three patients received additional estriol assays. In each instance, the additional assays demonstrated improved estriol excretion. Delivery was delayed in these pregnancies until infant maturity could be demonstrated usually by the Lecithin-Sphingomyelin ration. Subsequent Cesarean section yielded three viable infants, although one apparently ma-

TABLE 5
DURATION OF 52 DIABETIC PREGNANCIES

	Gestational Week					
	35	36	37	38	39	40
41 pregnancies (normal estriol values)	1	5	8	16	9	2
11 pregnancies (abnormal estriol values)	2	2	4	2	1	0

ture, 38-week neonate that had not had a Lecithin-Sphingomyelin determination developed respiratory distress syndrome and died five days following delivery.

Table 5 shows the duration of these pregnancies. Twenty-seven patients of the 41 normal estriol group were delivered at or beyond 38 weeks of gestation. Live births were recorded in all of these 41 diabetic pregnancies.

No neonatal deaths occurred although four infants did develop respiratory distress syndrome and congenital malformations were observed (ventricular septal defect and imperforate anus) in two infants. It should be emphasized that within this group of 41 diabetic pregnancies, all of which demonstrated normal estriol excretion, declining estriol values were reported in 31 of these pregnancies prior to delivery and were regarded as "clinically significant" estriol decreases and aggressive management initiated.

DISCUSSION

Serial analysis of estriol excretion in urine appears to be a valuable complement in the clinical management of pregnancies complicated by diabetes mellitus. Random urinary estriol determinations, when expressed as milligrams of estriol per gram of urinary creatinine, yield rapid and reliable information as to fetal status. In continuing a diabetic pregnancy with normal or rising estriol excretion, the clinician may be assured that normal estriol levels seem to indicate the lack of significant fetoplacental compromise while pregnancies demonstrating abnormal or lowered estriol excretion indicate fetal jeopardy. Results of this study suggest that estriol excretion does not differ widely between diabetic and normal healthy pregnancies. Although clinical comparison between estriol assays of diabetic and normal patients should not be attempted, a baseline estriol excretion in each diabetic patient should be established prior to interpretation or comparison of additional estriol values. The gestational duration of these 45 diabetic patients appeared to be increased with 30 of the 52 pregnancies or 57.6% of

the study population delivering at or beyond the 38th week of gestation.

The timing of delivery is ideally that moment which minimizes both the possibility of intrauterine death and the degree of infant prematurity. In most of the diabetic pregnancies studied, delivery was accomplished either vaginally or by Cesarean section once fetal maturity was determined, usually by the Lecithin-Sphingomyelin ratio. In situations of fetal prematurity, each patient must be individually evaluated with consideration being given primarily to the maternal status, the absolute estriol value, the pattern of estriol excretion and the degree of fetal prematurity. In these instances, the clinician must decide if the fetus would be "better off" in an intra- or extrauterine environment and act accordingly.

There were five stillbirths and one neonatal death among the 52 diabetic pregnancies reviewed, yielding a calculated perinatal mortality rate of 11.5%. This statistic represents only slight improvement in the overall perinatal mortality in diabetic pregnancies. Although, in two of the recorded stillbirths, laboratory errors and a patient failure in sample collection delayed both the recognition of fetal distress and the appropriate management.

Analysis of the estriol values and patterns obtained in each stillbirth demonstrated the rapid decline in estriol excretion which frequently occurs in the compromised diabetic pregnancy and emphasizes the need for daily estriol determinations in the surveillance of the diabetic pregnancy.

"Clinically significant" estriol decreases, while not abnormal estriol excretion values, do indicate reduced fetal-placental function and should alert the obstetrician to the possibility of impending fetal jeopardy.

In comparing the urinary estriol excretion and fetal outcome in patients with diabetes of White's classes B, C and D, no significant difference was found within these patients. This suggests that the degree of renal microangiopathy present did not alter the clinical use of the estriol-creatinine ratio in diabetes. It should be realized that in instances

of severe diabetic nephropathy or severe pre-eclampsia, the clinical value of the estriol creatinine determination may be less reliable.

SUMMARY

It would appear that the estriol determinations have value in the management of the insulin-dependent diabetic pregnancy and that daily estriol assays after the 35th week of gestation are essential for adequate fetal surveillance. An abnormal estriol value (10 mg of estriol per gram of creatinine or a 50% fall in estriol excretion from the previous estriol assay) indicates that prompt aggressive management is required in order to avoid intrauterine fetal death and that a normal or rising estriol value apparently indicates a satisfactory fetoplacental unit.

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Dr. Max A. Heeb of Sikeston was elected president of the Missouri Chapter of the American College of Surgeons at its ninth annual meeting in Kansas City. Dr. Heeb was formerly president-elect.

Dr. G. Lynn Krause, Jr., St. Louis, was elected vice-president.

New council members are Dr. Hugh S. Harris, Jr., Columbia; Dr. Raymond O. Frederick, St. Louis; and Dr. Earl J. Wipfler, Jr., St. Charles. Each will serve a three-year term.

LISA M. DUNKLE, M.D. and
RALPH D. FEIGIN, M.D., St. Louis

Infectious Mononucleosis Complicated by Opportunistic Bacterial Infection

Case Report

ALTERATIONS in immune responsiveness have been described during the course of infectious mononucleosis. Generally, however, this disease is not associated with an increased risk of bacterial infection referable to opportunistic microorganisms. The development of anaerobic septicemia, necrotizing pneumonitis, septic arthritis and osteomyelitis in a healthy 17-year-old boy who was hospitalized with infectious mononucleosis represents a previously unreported complication of this disease.

CASE REPORT

A 17 year, 9 months-old white football player was exposed to a companion with infectious mononucleosis two weeks prior to admission. Shortly thereafter, he complained of malaise. Two weeks later, severe pharyngitis was noted. A Monospot® test was strongly positive and throat culture was negative. Subsequently, myalgia, headache and hyperpyrexia developed. Hospitalization was required when severe emesis coupled with anorexia led to dehydration.

At the time of admission, a temperature of 38.4°C was noted. The patient weighed 77.7 kg and complained of severe fatigue. Mild scleral icterus, dry mucous membranes, marked pharyngeal and tonsillar erythema with exudates were noted. Examination of the chest was normal. Hepatosplenomegaly, splenic tenderness and generalized lymphadenopathy were apparent.

White blood cell count was 17,200/cu mm with a striking polymorphonuclear predominance. Urinalysis was normal. Other laboratory data included serum bilirubin of 3.02 mg/100 ml, serum glutamic oxalacetic transaminase of 136 IU/L, serum glutamic pyruvic transaminase of 133 IU/L and alkaline phosphatase 136 IU/L. A heterophile was positive (1:56 unabsorbed; 1:14 following absorption with guinea pig kidney [GPK] and no titer following absorption with beef red blood cells). Fever continued on the following day, a small interstitial right lower lobe infiltrate was demonstrated by chest radiograph.

One day later, marked swelling, erythema, warmth and tenderness of the right sterno-clavicular joint were noted, and radiographs showed widening and slight dislocation of the joint with changes in the proximal right clavicle suggestive of early osteomyelitis. The pulmonary parenchymal disease had progressed, and diffuse interstitial infiltrates were noted in all lobes.

Three milliliters of purulent, blood-tinged fluid was aspirated from the right sternoclavicular joint. Gram stain of this material showed predominantly gram positive organisms. After blood cultures were obtained, parenteral therapy with penicillin and methicillin was initiated.

Over the next six days, a rapidly progressive, necrotizing pneumonitis developed with formation of multiple cavities with air-fluid levels and large bilateral pleural effusions which required drainage by chest tube (Fig. 1). Diffuse interstitial infiltrates were still present.

Blood cultures obtained on the second hospital day grew *Peptostreptococcus anaerobius*, and material obtained from the right sternoclavicular joint aspirate grew *Bacteroides fragilis ss vulgatus*, *Staphylococcus epidermidis* and *Peptostreptococcus anaerobius*. In view of the patient's clinical improvement, the antibiotic regimen was not changed and a slow but progressive improvement continued. Pleural disease resolved slowly. Prompt clinical improvement in the septic arthritis and the osteomyelitis of the clavicle was noted despite radiographic evidence of progressive destruction of bone (Fig. 2).

Delayed hypersensitivity was evaluated and no reaction was noted following an intradermal streptokinase/streptodornase skin test; 4 mm of erythema but no induration was noted following intradermal inocula-

This is the first report of life-threatening systemic anaerobic infection complicating infectious mononucleosis. The patient was a previously healthy male adolescent with infectious mononucleosis and subsequent septicemia, pneumonitis, septic arthritis and osteomyelitis due to opportunistic anaerobic pathogens. While deficiencies in the immune system have been described during the course of this disease, it rarely has been associated with serious secondary bacterial infection. The authors are from the Edward Mallinckrodt Department of Pediatrics, Washington University School of Medicine and the Division of Infectious Diseases at St. Louis Children's Hospital.



Fig. 1 Chest radiograph shows diffuse interstitial infiltrates, confluent right lower lobe infiltrate with large pleural effusion and several pneumatoceles, one with a fluid level, in the right lung.



Fig. 2 Laminographic roentgenogram of clavicles shows demineralization, radiolucencies and bony destruction compatible with osteomyelitis of the right proximal clavicle.

tion with candida antigen. Serum immunoglobulin, C3 concentration and total hemolytic complement activity were normal. Polymorphonuclear leukocyte function was evaluated by unstimulated and stimulated NBT dye reduction and by evaluation of unstimulated and stimulated leukocyte hexose monophosphate shunt activity. All of these studies were normal. Two weeks following admission, the patient's lymphocytes showed a normal response to phytohemagglutinin and repeat SK/SD, and monilia skin tests were followed by development of 15 mm of induration in each case.

A heterophile determination performed two weeks after the initial sample showed a fall in antibody titer to 1:28 unabsorbed, 1:7 following absorption by guinea pig kidney and no titer following absorption by beef red cells. An EB viral antibody titer kindly performed in the laboratory of Dr. Werner Henle confirmed the diagnosis of acute infectious mononucleosis with an antiviral capsid antigen titer of 1:160.

Penicillin administered intravenously was continued for four weeks and was followed by six weeks of oral doses of clindamycin which was provided until healing of the osteomyelitis was demonstrated radiographically. At the conclusion of treatment, radiographic examination revealed normal lung parenchyma, mild residual pleural thickening on the right and remineralization and healing of the right proximal clavicle. Liver function tests were normal.

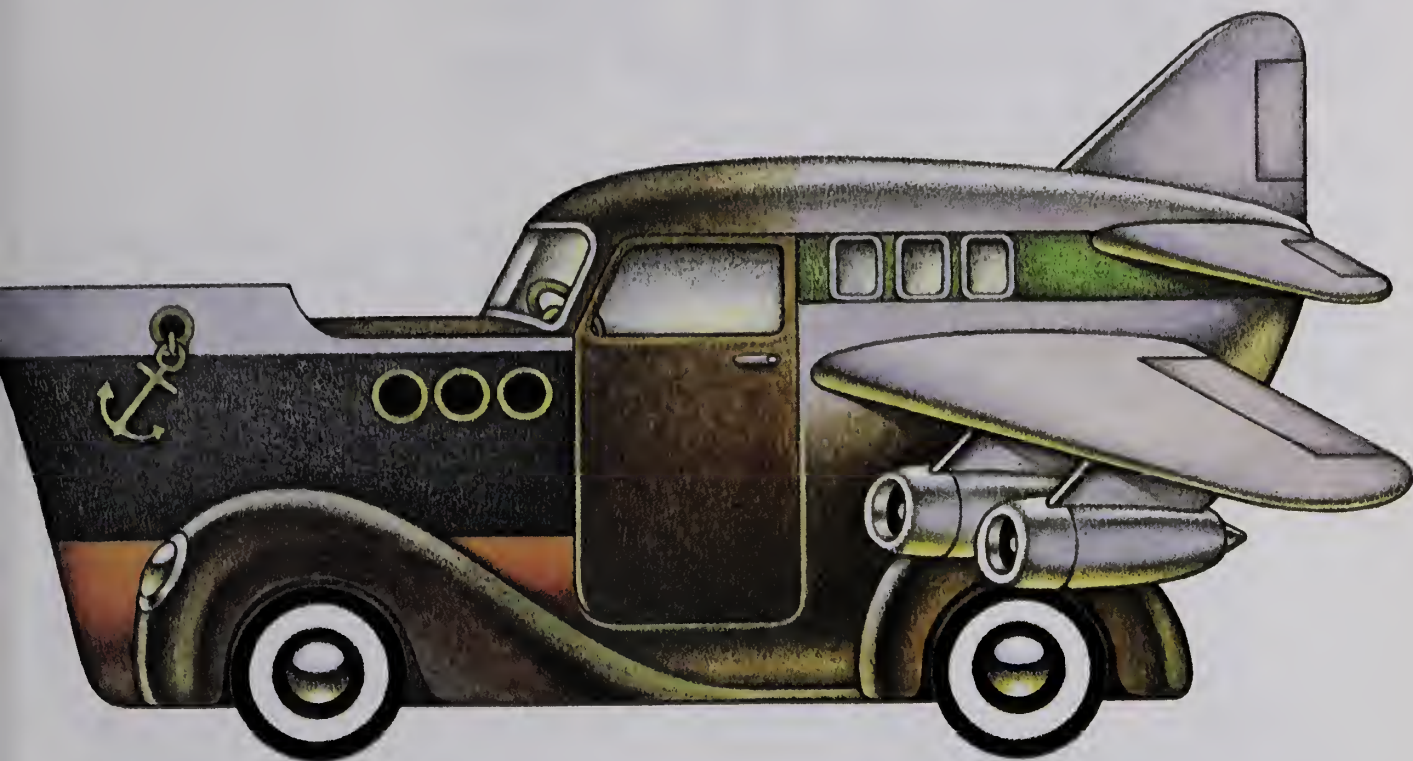
DISCUSSION

Life-threatening bacterial infection with organisms generally considered nonpathogenic is seen most frequently in the debilitated or immunosuppressed host. Much has been written about the immune system in patients with infectious mono-

nucleosis, but the alteration in immune status generally is not of such severity as to constitute a life-threatening situation.

Cutaneous anergy during infectious mononucleosis was first reported by Lantorpe and associates.¹ A transient depression in T-cell function generally persisting for two to four weeks has been reported by various investigators who have studied response to various antigens and who have performed *in vitro* tests of T-cell function.²⁻⁶ Although cellular immune suppression has been described in patients with infectious mononucleosis, specific morbid complications of this transient suppression have not been well documented.

The marked increase in immunoglobulin synthesis during infectious mononucleosis has been called an "immunological explosion" by Dameshek.⁷ The various antibodies elaborated include heteroantibodies, such as those directed against sheep red blood cells; isoantibodies directed against human red blood cells;⁸ and autoantibodies directed against such host tissues as platelets,⁹ red blood cells¹⁰ and smooth muscle cells.¹¹ In addition, an increase in the IgE fraction¹² has been noted, and specific antibodies directed against the EB virus can be demonstrated. These various antibodies may be responsible for noninfectious complications of infectious mononucleosis, i.e., hemolytic anemia, thrombocytopenia and others. In contrast, agammaglobulinemia has been described in three related male children following a life-threatening illness resembling infectious mononucleosis. None of these individuals developed bacterial infection.¹³ Infectious mononucleosis also has been accompanied or followed by a granulocytosis. In these cases, however, opportunistic bacterial infection has not been documented.¹⁴



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Usage in Pregnancy: See "Contraindications."

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*** Indications:** *Edema:* That associated with congestive heart failure, cirrhosis of the liver, the nephrotic syndrome; steroid-induced and idiopathic edema; edema resistant to other diuretic therapy. *Mild to moderate hypertension:* Usefulness of the triamterene component is limited to its potassium-sparing effect.

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reported in 4% of patients under 60 years, in 12% of patients over 60 years, and in less than 8% of patients overall. Rarely, cases have been associated with cardiac irregularities. Accordingly, check serum potassium during therapy, particularly in patients with suspected or confirmed renal insufficiency (e.g., elderly or diabetics). If hyperkalemia develops, substitute a thiazide alone. If spironolactone is used concomitantly with 'Dyazide', check serum potassium frequently—both can cause potassium retention and sometimes hyperkalemia. Two deaths have been reported in patients on such combined therapy (in one, recommended dosage was exceeded; in the other, serum electrolytes were not properly monitored). Observe patients on 'Dyazide' regularly for possible blood dyscrasias, liver damage or other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving Dyrenium (triamterene, SK&F). Rarely, leukopenia, thrombocytopenia, agranulocytosis, and aplastic anemia have been reported with the thiazides. Watch for signs of impending coma in acutely ill cirrhotics. Thiazides are reported to cross the placental barrier and appear in breast milk. This may result in fetal or neonatal hyperbilirubinemia, thrombocytopenia, altered carbohydrate metabolism and possibly other adverse reactions that have occurred in the adult. When used during pregnancy or in women who might bear children, weigh potential benefits against possible hazards to fetus.

Precautions: Do periodic serum electrolyte and

BUN determinations. Do periodic hematologic studies in cirrhotics with splenomegaly. Anti-hypertensive effects may be enhanced in post-sympathectomy patients. The following may occur: hyperuricemia and gout, reversible nitrogen retention, decreasing alkali reserve with possible metabolic acidosis, hyperglycemia and glycosuria (diabetic insulin requirements may be altered), digitalis intoxication (in hypokalemia). Use cautiously in surgical patients. Concomitant use with antihypertensive agents may result in an additive hypotensive effect. 'Dyazide' interferes with fluorescent measurement of quinidine.

Adverse Reactions: Muscle cramps, weakness, dizziness, headache, dry mouth; anaphylaxis; rash, urticaria, photosensitivity, purpura, other dermatological conditions; nausea and vomiting (may indicate electrolyte imbalance), diarrhea, constipation, other gastrointestinal disturbances. Necrotizing vasculitis, paresthesias, icterus, pancreatitis, xanthopsia and, rarely, allergic pneumonitis have occurred with thiazides alone.

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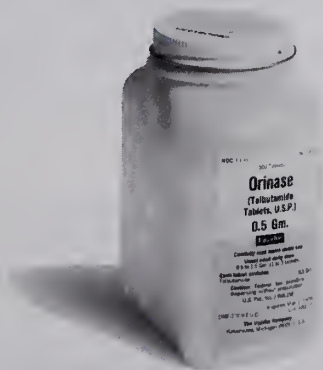
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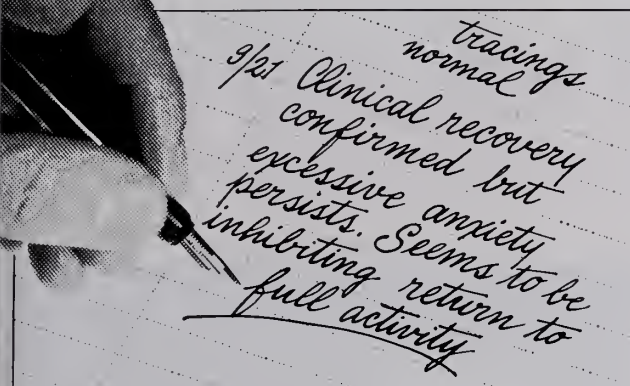
The patient who is realistically concerned about resuming his precoronary functioning may be

highly motivated to adhere to his rehabilitation regimen. However, the cardiac patient with *excessive* or unresolved anxiety may be so fearful of future heart failure that he refrains from your prescribed regimen. These excessively anxious cardiac patients eventually present the same clinical characteristics as patients deconditioned by bed rest.

Excessive anxiety can interfere with patient management

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*Zohman BL: *Geriatrics* 28:110-119, Feb 1973

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Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. As with all CNS-acting drugs, caution patients against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving). Though physical and psychological dependence have rarely been reported on recommended doses, use caution in administering to addiction-prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions), following discontinuation of the drug and similar to those seen with barbiturates, have been reported. Use of any drug in pregnancy, lactation, or in women of childbearing age requires that its potential benefits be weighed against its possible hazards.

Precautions: In the elderly and debilitated, and in children over six, limit to smallest effective dosage (initially 10 mg or less per day) to preclude ataxia or oversedation, increasing gradually as needed and tolerated. Not recommended in children under six. Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider individual pharmacologic effects, particularly in use of potentiating drugs such as MAO inhibitors and phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions (e.g., excitement, stimulation and acute rage) have been reported in psychiatric patients and hyperactive aggressive children. Employ usual precautions in treatment of anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation have been reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship has not been established clinically.

Adverse Reactions: Drowsiness, ataxia and confusion may occur, especially in the elderly and debilitated. These are reversible in most instances by proper dosage adjustment, but are also occasionally observed at the lower dosage ranges. In a few instances syncope has been reported. Also encountered are isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent and generally controlled with dosage reduction; changes in EEG patterns (low-voltage fast activity) may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice and hepatic dysfunction have been reported occasionally, making periodic blood counts and liver function tests advisable during protracted therapy.

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Foot of patient with acute gouty arthritis as seen by conventional x-ray.



Scintiphotogram of same foot reflects inflammatory process.

The scintiphotograph on the right shows increased uptake of radiotechnetium polyphosphate in the metatarsophalangeal joint and the proximal interphalangeal

joint of the great toe of a patient with acute gouty arthritis. This increased uptake probably results from increased vascularity in the affected areas.

For a more detailed description of scintiphotography, see "addendum" at right.

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INDOCIN is a potent drug with anti-inflammatory, antipyretic, and analgesic properties. It should not be used in conditions other than those recommended. Although INDOCIN does not alter the progressive course of the underlying disease, in selected patients with acute gouty arthritis it has been found highly effective in relieving pain and in reducing fever, swelling, and tenderness.

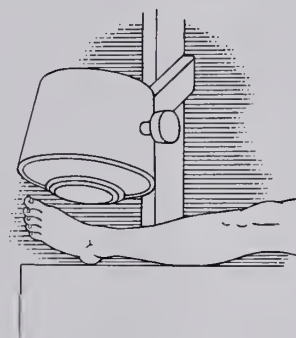
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For a brief summary of prescribing information, please see following page.

addendum

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Facts about Scintiphotography



In recent years a variety of radiopharmaceuticals have been employed to aid in the diagnosis of bone and joint disorders. The joint-imaging technique consists of injecting technetium polyphosphate intravenously, and imaging is performed with the scintillation camera two hours after the administration of the radionuclide. In general, for joint surveying, the shoulders, elbows, hands, wrists, knees, ankles, feet, and vertebral column are mapped. The entire scanning process takes approximately one hour. The criterion for a positive image is a higher concentration of radioactivity in a joint region than in adjacent nonarticular bone. In effect, each patient serves as his own control.

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IMPORTANT NOTE: INDOCIN (Indomethacin, MSD) cannot be considered a simple analgesic and should not be used in conditions other than those recommended. The drug should not be prescribed for children because safe conditions for use have not been established.

Because of the high potency of the drug and the variability of its potential to cause adverse reactions, the following are strongly recommended: 1) the lowest possible effective dose for the individual patient should be prescribed. Increased dosage tends to increase adverse effects, particularly in doses over 150-200 mg per day, without corresponding clinical benefits; 2) careful instructions to, and observations of, the individual patient are essential to the prevention of serious and irreversible, including fatal, adverse reactions, especially in the aging patient.

Contraindications: Children 14 years of age and under; pregnant women and nursing mothers; active gastrointestinal lesions or history of recurrent gastrointestinal lesions; allergy to aspirin or indomethacin.

Warnings: *Gastrointestinal Effects:* Because of the occurrence and, at times, severity of gastrointestinal reactions, be continuously alert for any sign or symptom signaling a possible gastrointestinal reaction. The risks of continuing therapy with INDOCIN in the face of such symptoms must be weighed against the possible benefits to the individual patient. Gastrointestinal effects may be reduced by giving the drug immediately after meals, with food, or with antacids. Use greater care in aging patients.

Ocular Effects: Corneal deposits and retinal disturbances, including those of the macula, have been observed in some patients on prolonged therapy. Discontinue therapy if such changes are observed. Ophthalmologic examination at periodic intervals is desirable in patients on prolonged therapy.

Central Nervous System Effects: INDOCIN may aggravate psychiatric disturbances, epilepsy, and parkinsonism, and should be used with considerable caution in patients with these conditions. If severe CNS adverse reactions develop, discontinue the drug.

Precautions: Blurred vision may be a significant symptom that warrants a thorough ophthalmologic examination. Patients should be cautioned about engaging in activities requiring mental alertness and motor coordination, as driving a car. Headache which persists despite dosage reduction requires complete cessation of the drug. May mask the usual signs and symptoms of infection; therefore, the physician must be continually on the alert for this and should use the drug with extra care in the presence of existing controlled infection. After the acute phase of the disease is under control, an attempt to reduce the daily dose should be made repeatedly until the patient is off entirely.

Drug Interactions: Although INDOCIN has not influenced the hypoprothrombinemia produced by anticoagulants, patients on anticoagulant therapy should be observed closely for alterations in prothrombin time. In patients receiving probenecid, plasma levels of indomethacin are likely to be increased and a lower total daily dose of INDOCIN may produce a therapeutic effect; increases in the dose of INDOCIN should be made cautiously and in small increments.

Adverse Reactions: *Gastrointestinal Reactions:* Single or multiple ulcerations of the esophagus, stomach, duodenum, or small intestine, including perforation and hemorrhage, with fatalities in some instances; rarely, intestinal ulceration has been associated with stenosis and obstruction; gastrointestinal bleeding without obvious ulcer formation; perforation of preexisting sigmoid lesions (diverticulum, carcinoma, etc.); rarely, increased abdominal pain in ulcerative colitis patients or development of ulcerative colitis and regional ileitis; gastritis may persist after the cessation of the drug; nausea, vomiting, anorexia, epigastric distress, abdominal pain, and diarrhea.

Eye Reactions: Corneal deposits and retinal disturbances, including those of the macula, have been observed on prolonged therapy; blurring of vision.

Hepatic Reactions: Rarely, toxic hepatitis and jaundice, including some fatal cases.

Hematologic Reactions: Aplastic anemia, hemolytic anemia, bone marrow depression, agranulocytosis, leukopenia, and thrombocytopenic purpura may occur rarely. Since some patients manifest anemia secondary to obvious or occult gastrointestinal bleeding, appropriate blood determinations are recommended.

Hypersensitivity Reactions: Acute respiratory distress, a rapid fall in blood pressure resembling a shock-like state, angioedema, dyspnea, asthma, angitis, pruritus, urticaria, skin rashes, purpura.

Ear Reactions: Hearing disturbances—deafness reported rarely; tinnitus.

Central Nervous System Reactions: Psychic disturbances including psychotic episodes, depersonalization, depression, and mental confusion; coma; convulsions; peripheral neuropathy; drowsiness; lightheadedness; dizziness; syncope; headache.

Cardiovascular-Renal Reactions: Edema, elevation of blood pressure, hematuria.

Dermatologic Reactions: Loss of hair, erythema nodosum.

Miscellaneous: Rarely, vaginal bleeding, hyperglycemia, glycosuria, ulcerative stomatitis, and epistaxis.

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Pneumonitis resembling primary atypical pneumonia¹⁵ and pleural effusion from which no bacterial pathogens could be isolated¹⁶ have been described in patients with infectious mononucleosis. But, even in fatal cases, bacterial superinfection of the lung has not been a prominent finding.^{17, 18}

The present case is an example of a previously unreported complication of infectious mononucleosis. It is difficult, however, to attribute the widespread multifocal bacterial infection which this patient experienced to the transient depression in cellular immune function which was noted early during the course of the EB viral disease.

Initially, a severe necrotizing pharyngitis was noted. The organisms recovered from blood and joint fluid are those which may be normal inhabitants of the oral cavity and pharynx. It seems likely that the normal anaerobic flora of the oropharynx gained access to the bloodstream as a result of erosion of the mucosa. The septic arthritis, osteomyelitis, septicemia and necrotizing pneumonitis which developed responded readily to antibiotic therapy. This case serves to emphasize that the development of pneumonic disease during the course of infectious mononucleosis cannot always be attributed to primary EB viral infection. Moreover, when secondary bacterial infection occurs, disease caused by opportunistic microorganisms should be considered. It should be emphasized that in this case, routine cultures were negative and only special anaerobic techniques permitted a definitive diagnosis.

Acknowledgement: The authors wish to express appreciation to Drs. Maurice Lonsway, Jr., Fredric Peterson, Steven Plax and Gerald Wool, the primary care physicians who referred this patient, and to Dr. William McAlister for permission to reproduce the radiographs.

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St. Louis, Mo. 63110

Missouri Health Manpower Conference

The Missouri Health Manpower Conference will be held on September 29 at the Ramada Inn in Columbia.

Sponsored by the Missouri State Health Planning and Development Agency, the conference will focus on the implementation of recommendations to meet the state's requirement for eight health manpower groups. Physicians, dentists, registered nurses, licensed practical nurses, veterinarians, pharmacists, optometrists and podiatrists will be the major health manpower groups under discussion.

The Health Manpower Planning Task Force of the State Health Planning and Development Agency recently completed an indepth study of Missouri's requirements for physicians. The report points out that based on national averages, there appears to be a shortage of physician services in certain areas of the state rather than an overall shortage in the state as a whole. The report finds that Missouri has a problem with the distribution of its existing physicians rather than with the number of physicians. It includes several recommendations to alleviate this maldistribution of physician services.

No registration fee will be required, but preregistration is urged. MSMA members interested in attending should contact the State Health Planning and Development Agency, Broadway State Office Building, Jefferson City 65101 or phone 314-751-2055.

Acute Organic Brain Syndrome Psychosis With Methyldopa Therapy

Case Report

THE LITERATURE includes reports of occasional cases of psychic disturbances such as depression,¹⁻³ decrease in mental activity⁴ and psychotic episodes⁵⁻⁷ occurring when a patient is receiving methyldopa. I recently saw such a case in a psychiatric consultation.

CASE REPORT

The patient is a 51-year-old white man who has been married for 30 years. He is currently unemployed, having worked in construction independently until November, 1974 and then working full-time as a salaried employee until January, 1975, when he had his first inpatient hospitalization for treatment of his hypertension at an affiliated hospital. He states that for about ten years, he had been treated occasionally for hypertension on an outpatient basis. He had never been hospitalized psychiatrically in the past, but he had been hospitalized periodically since 1942 at this hospital for treatment of Dupuytren's contractures with no psychiatric symptoms ever being noted.

When he was started on a regimen of methyldopa for treatment of his hypertension in January, he reports that he began to have delusions. His wife also makes the same observations. Subsequently, a few weeks following the start of therapy with methyldopa, he was fired because his delusional mental state was interfering with his work.

Prior to his latest hospitalization, the patient had delusions that someone was trying to harm him. These delusions were accompanied by visual hallucinations that the storm windows had been forced open. The delusions had become bothersome enough that he had slept in his car or truck rather than in his bedroom.

Although patients rarely develop psychotic symptoms as a result of methyldopa therapy, this case report shows that methyldopa-related psychosis can occur. In this case, the psychotic symptoms cleared within 72 hours after methyldopa was discontinued. Dr. Hawkins is Staff Psychiatrist, Veterans Administration Hospital in Kansas City and Assistant Professor of Psychiatry, College of Health Sciences and Hospital at the University of Kansas Medical Center in Kansas City, Kan.

Mental Status: He was disoriented on admission. There were no suicidal thoughts. He was fearful that he might harm someone and not even realize it if he felt threatened by his delusions that they were trying to harm him. Speech was goal directed. Affect was appropriate, as was mood. Insight and judgment were good; intelligence was bright average. The patient was cooperative.

Hospital Course: Prior to hospitalization he was taking 500 mg of methyldopa four times a day. For the first three days of his hospitalization, he took 250 mg every 6 hrs and his disorientation and hallucinations stopped. The patient's methyldopa therapy was discontinued following psychiatric consultation. His hypertension was managed with other drugs. Forty-eight hours following discontinuation of methyldopa, the patient's delusions began to lessen. By 72 hours, he was able to sleep well without fear of being harmed. He continued to be free of psychiatric symptoms for the remaining week of his hospital stay. Daily blood pressures from admission to discharge were as follows: while receiving methyldopa—240/140, 170/110, 115/78; after methyldopa was discontinued—200/120, 160/100, 160/100, 150/108, 156/94, 148/92, 130/95, 134/92, 160/90, 175/135. On follow-up two months after his discharge, he was still free of psychiatric symptoms.

SUMMARY

Although in this patient's treatment there continued to be occasional difficulty in managing his hypertension, that alone did not result in psychiatric symptoms as it sometimes can in some patients. He also was afebrile, even though methyldopa can cause a febrile response which, in turn, can result in an acute psychosis. In those rare patients who develop psychotic symptoms while being treated with methyldopa (especially if there is no previous psychiatric history), the physician should be alert to the possibility that a drug-related psychosis is occurring.

Acknowledgement: The author wishes to express appreciation to Frank V. Smith, M.D. and J. J. Bidwell, M.D. for their assistance in preparing this paper.

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(Continued on page 481)

A Frequently Overlooked Injury in the Hand

MINOR TRAUMA can produce a fracture of the volar lip of the middle phalanx which extends into the proximal interphalangeal (PIP) joint. Varying degrees of dorsal subluxation of the middle phalanx may accompany the fracture. If untreated, the fracture subluxation eventually results in traumatic arthritis with destruction of the PIP joint. Prompt diagnosis and appropriate treatment can provide a painless joint with adequate mobility. Because the extent of the injury often goes unrecognized, treatment may not be optimal. A brief description of the anatomy of the PIP joint and a discussion of the pathophysiology, diagnosis and treatment of this injury are presented.

ANATOMY

The PIP joint is a hinge joint in which the articular surfaces are molded to each other to permit motion in one plane only—flexion and extension. Joint stability is maintained by strong collateral ligaments which span the joint (Fig. 1). Accessory collateral ligaments on each side of the joint aid in maintaining joint stability. Hyperextension of the joint is prevented by the volar plate, which is a dense fibrous tissue structure firmly attached to the volar rim of the base of the middle phalanx and into the volar surface of the neck of the proximal phalanx. Capsular support of the joint is aided by the insertion of the central slip of the extensor tendon into the dorsal lip of the base of the middle phalanx. The extensor action of the central slip is held in check by the action of the volar plate. The sublimis and profundus tendons bridge the volar surface of the joint capsule, but they do not contribute fibers to the capsule.

PATHOPHYSIOLOGY

Injuries that involve the volar plate of the PIP joint may or may not be associated with fracture of the volar lip of the middle phalanx. A hyperextension injury may result in disruption of the fibrous tissue volar plate from its insertion into the middle phalanx or it may result in fracture of the volar lip of the middle phalanx. In the latter case, the volar plate is intact and attached to the bony fragment, but it has lost its restraining function on the middle phalanx. This discussion is limited to the injury with associated bony fracture.

When a fragment of the volar rim of the middle phalanx is attached to the distal volar plate, the articular surface of the middle phalanx is disrupted. The fracture fragment usually retains its normal position. The dorsal and proximal pull of the central slip of the extensor tendon on the middle phalanx is unopposed by the restrictive action of the volar plate. That portion of the middle phalanx attached to the extensor tendon dislocates dorsally while the volar-rim fracture fragment, the accessory collateral ligaments and volar plate maintain their normal joint relationships (Fig. 1). The proper collateral ligaments may remain attached to the middle phalanx and become slack as the middle phalanx is dorsally displaced.

The volar-rim fragment may involve more than 50% of the articular surface, but usually involves 20% to 40%.¹ The larger the fragment, the greater the chance of dorsal dislocation of the main body of the middle phalanx. A single volar-rim fracture fragment may be present. In our experience, how-

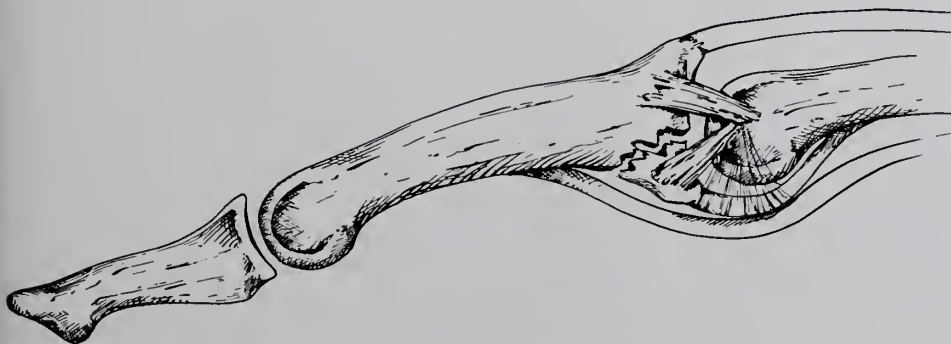


Fig. 1 Anatomy of the PIP joint. Fracture of the volar rim fragment frees the main body of the middle phalanx with attached central slip of extensor tendon from the restrictive action of the volar plate—resulting in dorsal subluxation.



Fig. 2 Lateral radiograph of the finger demonstrates fracture dislocation of the PIP joint.

ever, this fragment has more often been comminuted.

DIAGNOSIS

The diagnosis of fracture dislocation of the PIP joint may be suspected clinically but can be confirmed radiographically only. A single anteroposterior radiographic projection of the finger is inadequate. The diagnosis can be made only on a standard lateral radiographic view (Fig. 2). Even this may prove deceptive. Casual inspection of the lateral radiograph may fail to show the extent of damage to the cartilagenous articular surface of the base of the middle phalanx (Fig. 3). It also may appear that the volar rim fragment in this particular case is displaced. However, the abnormality is actually dorsal subluxation of the main body of the middle phalanx with retention of the volar rim fragment in its normal joint relationship.

TREATMENT

The aim of treatment is to provide the patient

A variety of deformities occur with injury to the proximal interphalangeal joint of the finger. One which is often overlooked or misdiagnosed is a fracture of the volar rim of the base of the middle phalanx with associated dorsal subluxation of the remainder of the middle phalanx. Emphasis is placed upon early, accurate diagnosis and prompt, appropriate treatment. The consequences of improper or delayed diagnosis and treatment are traumatic arthritis and destruction of the joint.

The authors are from the Division of Plastic Surgery, Washington University School of Medicine.



Fig. 3 Lateral radiograph demonstrates normal position of volar rim fragment with lesser degree of dorsal subluxation of main body of middle phalanx. Extensive destruction of articular surface present at time of surgery.

with a functional, pain-free joint. This can be accomplished only by restoring a smooth, articular surface at the base of the middle phalanx. Failure to do so results in the development of a traumatic arthritis with ultimate destruction of the joint. Treatment must include reduction of the dorsal subluxation of the middle phalanx and restoration of a smooth articular surface. The latter can be accomplished only by anatomic reapproximation of the large and small fracture fragments. If this is impossible, the small fragment must be excised and the volar plate reinserted into the middle phalanx.

Closed reduction of the fracture dislocation and accurate articular realignment are extremely difficult to achieve, if not impossible. Frequently, extensive articular cartilage destruction is present, but it cannot be visualized by standard radiographs (Fig. 3). Because restoration of the smooth articular surface is the most important factor in obtaining a functional joint, we advocate (as have others)²⁻⁴ open reduction with internal fixation.

OPERATIVE PROCEDURE

Open reduction and internal fixation usually are carried out under general anesthesia with tourniquet control. A mid-lateral incision is made on the radial side of the finger and extended from the distal interphalangeal joint to the proximal crease of the proximal phalanx. Reflection of the skin edges exposes Cleland's ligament, which is divided. The neurovascular bundle is identified beneath Cleland's ligament and is maintained in the volar tissue flap which is freed from the flexor tendon sheath. The dorsal skin flap is elevated to expose the extensor apparatus and underlying joint. A portion of the flexor tendon sheath overlying the PIP



Fig. 4 Forceps hold volar rim fragment with attached volar plate (same patient as Fig. 2).

joint is excised. This exposes the sublimis and profundus tendons as well as the volar surface of the volar plate. A longitudinal incision is made in the center of the collateral ligament. The dorsal half of the collateral ligament is elevated in continuity with the periosteum of the proximal and middle phalanges (maintaining its attachment to both). The volar half is detached from its insertion into the middle phalanx. The accessory collateral ligament is detached from the volar plate, exposing the articular surface. The fracture site is identified and the volar rim fragment is brought out into the center of the wound (Fig. 4).

To allow free mobility of the volar plate, the accessory collateral ligament on the opposite side is detached from the volar plate. This can be done without a separate incision on the ulnar side of the finger unless the injury is long-standing, in which case contracture of the collateral ligaments may make a second incision necessary to obtain exposure.

When a single, large volar rim fragment is present, the continuity of the articular surface of the joint can be restored by reducing the fracture dislocation under direct visualization. With the PIP joint held in slight flexion, the reduction is maintained by inserting a Kirschner wire through the volar rim fragment and into the middle phalanx. When a small or shattered fragment is present, a smooth articular surface is more difficult to achieve. If articular continuity cannot be readily restored, resection of the bony fragment from its attachment to the volar plate is indicated.

In either a case of retention or resection of the bony fragment, a Bunnell stitch is placed through the volar plate by using a 5-0 stainless steel wire suture. Both wires are passed through a single hole in the middle phalanx and out through the dorsal



Fig. 5 Intraoperative lateral radiograph (same patient as in Figs. 2 and 4) following reduction of dislocation, resection of volar rim fragment, reinsertion of volar plate into middle phalanx and placement of Kirschner wire diagonally across joint.

skin and through a button. The wire ends are tightened over the button to adjust tension on the volar plate. If the bony fragment has been resected, tension must be adjusted so that the distal end of the volar plate fits snugly into the fracture site of the middle phalanx. Gentle passive flexion and extension of the joint are attempted to determine if tension of the volar plate suture is adequate to prevent dorsal subluxation of the middle phalanx. It is necessary to insert the volar plate more snugly or distally if subluxation occurs. After appropriate tension on the volar plate has been achieved, a transfixing Kirschner wire is passed across the PIP joint diagonally. Proper rotation and alignment of the finger also must be maintained. Intraoperative radiographs are recommended (Fig. 5). The collateral ligament is repaired with fine absorbable sutures, the skin is closed and a sterile dressing is applied.

The finger is immobilized for four weeks postoperatively, after which time the Kirschner wire transfixing the PIP joint is removed and gentle active and passive motion is begun. The wire suture used to reattach the volar plate is removed two weeks later by cutting the suture over the button and pulling on the end with the knot.

DISCUSSION

The best results of treatment of fracture dislocation of the PIP joint are obtained when treatment is carried out promptly after the injury has occurred. This necessitates early, accurate diagnosis. It also necessitates choosing the proper treatment.

A spectrum of deformities result from injuries involving the volar plate of the PIP joint. These range



Fig. 6 Result of conservative treatment (closed reduction with immobilization) six months after injury. The articular surface is destroyed; stiffness and pain on motion are present.

from simple disruption of the volar plate from its insertion into the base of the middle phalanx to fracture of the volar lip of the middle phalanx. In the latter case, the volar plate remains attached to the fracture fragment which retains its normal anatomic position. Varying degrees of dorsal subluxation of the middle phalanx may be present, including dislocation. Failure to recognize the spectrum of deformities has led to some confusion in selecting the proper treatment.

Conservative treatment by means of immobilization alone or direct surgical repair are both acceptable modes of treatment in the following instances: (1) simple disruption of the volar plate without associated subluxation of the middle phalanx and (2) avulsion of a small volar rim fragment in continuity with the volar plate without associated subluxation

of the middle phalanx.

In those instances in which the injury to the PIP joint involves any degree of dorsal subluxation of the middle phalanx, treatment must be directed toward reduction of the subluxation plus restoration of articular surface continuity. We disagree with reports that advocate conservative treatment of a fracture dislocation of the PIP joint by means of closed reduction with immobilization.⁵ In our experience (and others'), it is impossible to maintain anatomic reduction and restore articular surface continuity without open reduction and internal fixation.

The consequences of delay or improper diagnosis and treatment include traumatic arthritis with ultimate destruction of the articular surface, pain on motion or ankylosis (Fig. 6). Treatment of late traumatic arthritis is limited to fusion of the painful joint, replacement of the joint with a prosthesis or amputation of the finger.

Surgical fusion of the PIP joint at approximately 45° flexion implies obvious permanent limitations. In our experience, many patients with fused PIP joints have ultimately requested amputation of the involved finger. The results of PIP joint arthroplasty using silicone replacements for posttraumatic disabilities have not been uniformly satisfactory. Strickland⁶ reported a series of 55 PIP joints with posttraumatic disabilities in 49 patients treated by silicone replacement arthroplasty over a five-year period. Preoperative average range of motion was 17°. Postoperative average range of motion was only 43°. The average range of motion of the normal PIP joint is 110°. Following immediate treatment of a fracture dislocation of the PIP joint by



Fig. 7 Result of treatment by means of open reduction with internal fixation (same patient as in Fig. 3). (A) extension and (B) flexion. The patient has resumed her previous job as typist.

open reduction and internal fixation, the average range of motion which can be expected is 78° .^{2, 4} This corresponds to the results achieved in our patients treated in this manner (Fig. 7). These results are consistent with good function.

SUMMARY

The anatomy, pathophysiology, diagnosis and treatment of fracture dislocation of the PIP joint of the finger have been presented. Although a variety of deformities occur with injury to the PIP joint, our discussion is limited to those instances in which a fracture of the volar rim of the middle phalanx is present with associated dorsal subluxation of the remainder of the middle phalanx.

Emphasis has been placed on early, accurate diagnosis by means of a lateral radiograph of the finger. Early, accurate diagnosis should lead to prompt, appropriate treatment. In cases of fracture dislocation, this is open reduction and internal fixation with reinsertion of the volar plate into the mid-

dle phalanx. Continuity of the articular surface can be assured only by direct visualization.

Consequences of delayed diagnosis and treatment result from failure to adequately reduce the fracture dislocation and failure to achieve a smooth articular surface. This produces a traumatic arthritis with ultimate destruction of the articular surface of the joint, pain on motion or ankylosis. Results of treatment of posttraumatic disabilities of the PIP joint are generally unsatisfactory.

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Reprints: Doris Hawkins, M.D.

VA Hospital

4801 Linwood Blvd.

Kansas City, Mo. 64128

Acute Organic Brain Syndrome

(Continued from page 476)

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In Memoriam

Leo J. Benson, Jr., M.D., 105 E. Washington, Kennett 63857, a graduate of the University of Arkansas, 1950; member Dunklin County Medical Society; age 52; died May 17, 1976.

Carl C. Irick, M.D., K-1 Tulip St., Windmill Village, N. Fort Myers, Fla., 33903, a graduate of Washington University, 1924; member St. Louis County Medical Society; age 82; died May 20, 1976.

Ben L. Leming, M.D., 819 Locust St., St. Louis 63101, a graduate of Indiana University, 1942; member St. Louis County Medical Society; age 58; died May 30, 1976.

Hugh R. Harting, M.D., 4400 Lindell, St. Louis 63108, a graduate of Washington University, 1948; member St. Louis Medical Society; age 51; died June 11, 1976.

Randall J. Meglitsch, M.D., 312 Millman, St. Louis 63135, a graduate of St. Louis University,

1970; member St. Louis Medical Society; age 27; died June 13, 1976.

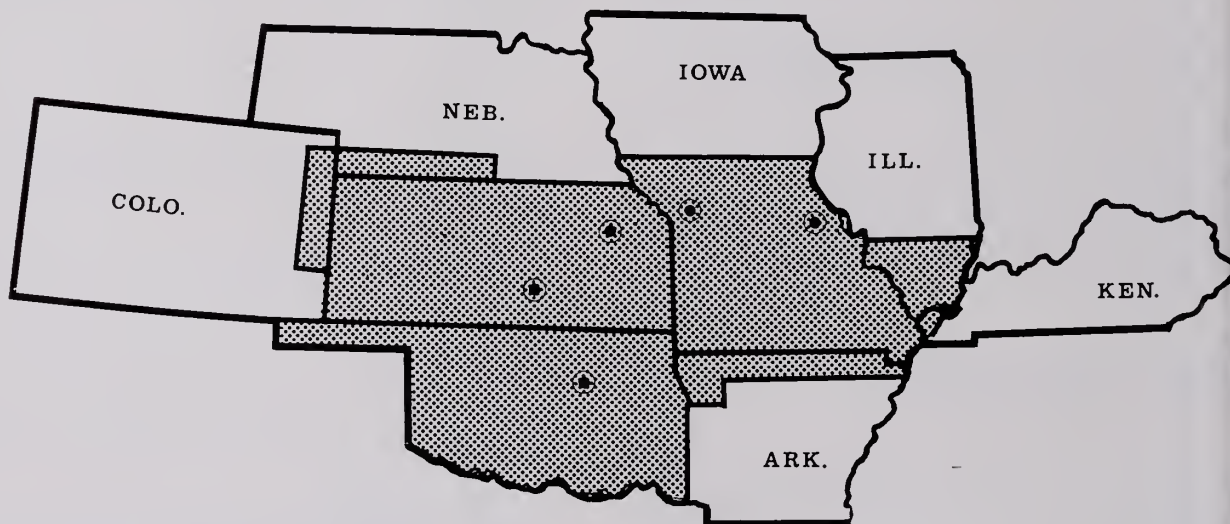
Paul K. Webb, M.D., 7583 Dale, St. Louis 63117, a graduate of Washington University, 1923; member St. Louis Medical Society; age 78; died June 25, 1976.

Jacob Zellermyer, M.D., 5801 Lockton La., Shawnee Mission, Kan. 66205, a graduate of the University of Vienna, 1934; member Jackson County Medical Society; age 68; died June 25, 1976.

Robert W. Kieber, M.D., Kirkpatrick Bldg., St. Joseph 64501, a graduate of Creighton University, 1945; member Buchanan County Medical Society; age 55; died June 28, 1976.

Edmund A. Smolik, M.D., 621 S. New Ballas Rd., St. Louis 63141, a graduate of Western Reserve University, 1936; member St. Louis Medical Society; age 66; died July 10, 1976.

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President's Message

"Delegates, you have selected as members of the AMA Board of Trustees, Dr. Frank Jirka of Illinois, Dr. Lowell Steen of Indiana, Dr. John Coury of Michigan and DR. HUBERT A. RITTER OF MISSOURI."

A deep feeling of happiness and pride overcame me as Dr. Tom Nesbitt, Speaker of the AMA House of Delegates, made the above announcement to the Delegates on Thursday, July 1 during the Annual Convention in Dallas, Tex.

With the election of Hugh Ritter to the 12-member AMA Board, Missouri now has direct input into the governing process of our national organization. And, as all who know Hugh will attest, he will be an active and dedicated asset to the Board. The Missouri Delegation to the AMA has always been widely respected, and I think that the election of Hubert Ritter bears evidence of this.

No one worked harder during his campaign than Hugh himself. He contacted many House members personally in the months preceding the Convention. During the week of the Convention in Dallas, he maintained a grinding schedule of interviews and discussions with delegations from other states.

In addition, the entire Missouri Delegation pitched in to assist Hugh in any way possible. Our Delegates and Alternates had many discussions with other Delegates in order to detail Hugh's positions. The MSMA Auxiliary members who attended the Convention added their prestige to the campaign and the MSMA staff, as usual, made certain everything was right in the "mechanical end" of the campaign.

Missouri's influential status in the AMA was further heightened with the reelection of Dr. Joseph M. White of Columbia to the AMA Council on Medical Education. Dr. White, who won his third term on the Council, is serving as chairman of this very important group. The respect and high regard for Dr. White was evident in the many conversations I held with physicians at the Convention. He will do a tremendous job as Council chairman.

Thanks are due to many, many people for the successful campaigns conducted by Dr. Ritter and Dr. White, and I join in expressing appreciation to all those concerned. And, finally, on behalf of all the membership of the MSMA, I heartily congratulate Dr. Ritter and Dr. White upon election to their lofty positions in the AMA!



Max S. Franklin, M.D.



Woman's Auxiliary

*"Help Thy Brother's Boat Across,
and Lo! Thine Own Has Reached
the Shore."*

—HINDU PROVERB

This is the theme chosen to represent the Auxiliary's goals for the Bicentennial Year. It takes on added significance as we approach the impending dilemma of protecting the



Mrs. George P. Wilson
President

American public through a projected immunization program of unprecedented dimensions. It clearly reflects the first objective of the MSMA Auxiliary as defined in our Bylaws: "To extend the aims of the Missouri State Medical Association in its program for the advancement of medicine and public health."

Hoping that our skills and knowledge could be utilized in the name of medicine, MSMA Council approval was requested to train and orient Auxiliaries for the task ahead. In June, members from throughout the state assembled for a briefing by the Director of the Swine Influenza Program. The subsequent program was developed in an effort to provide organized and trained doctors' wives who can serve to alleviate the strain imposed by the increased patient load and by the required data tabulations and consent forms. While the efforts of all are needed to successfully effect the mass immunization, this program represents a unique service provided by the Auxiliary to the physician.

I am pleased to introduce, in this message, the MSMA Auxiliary Coordinator named to direct our program—Mrs. Thomas N. Cofer, Grand River County Auxiliary President and State Rural Health Chairman.

August, 1976

Dear Doctors,

In a program as comprehensive as this Swine Flu Immunization Program promises to be, we want to help!

Auxiliary volunteers throughout Missouri are trained and available on request to assist any physician who is immunizing through his private office facilities.

We hope to help in two ways:

- 1) *Clerical*—All volunteers are acquainted with forms to be used in this program.
- 2) *Qualified Nursing Help*—Numerous members are qualified nurses and can be utilized in their professional capacity.

If you feel that our volunteers can be helpful to you, please contact me. We will do our best to have a team of two or three volunteers at your office on the dates requested.

Thank you and I hope to be hearing from you!

Bobbe Cofer

Mrs. Thomas N. Cofer
State Auxiliary Coordinator
503 Elmdale Rd., Chillicothe 64601
(816) 646-3890

EDITORIAL

FRAMEWORK FOR BUREAUCRATIC TOTALITARIANISM

We physicians can be so absorbed by our day-to-day problems that we overlook a gigantic danger now building up—a danger that could compound many of our problems and create new ones.

It's the Health Planning Act of 1974. This law is not just another governmental abstraction. It's not just a sauced-up rehash of Comprehensive Health Planning, the Regional Medical Program and so forth.

Quite to the contrary, it's the framework for a bureaucratic totalitarianism that could reshape the health-care system as we know it—including the responsibilities and expandability of hospitals and other facilities and even the rates they charge.

Moves to put doctors' offices and fees within the scope of the act are afoot in the Department of Health, Education and Welfare, even though the AMA got them excluded from the law.

Certainly, there must be planning. And, certainly, we must avoid costly overbuilding and overstocking of hospitals. Consider some of the ways, however, in which the Health Planning Act would flout the principles of rational planning, be a heavy expense in itself and imperil the quality of care:

* The Secretary of HEW is to dominate five somewhat overlapping levels of federal, state and local authority. He also is to issue national health planning policy, appoint a national advisory council,

approve state and local planning agencies and the funds they receive and establish the criteria and procedures they use.

* Certificate-of-need legislation must be adopted in all states, as prescribed by the HEW Secretary. The need for all new institutional facilities and services must be certified; the need for all existent institutional services must be reviewed every five years. Practice-profit data from PSROs, plus the minority status of direct providers of care on local planning boards, could arbitrarily influence the expansion or continuation of services.

* Up to six states are to get federal grants to demonstrate rate regulation for health services. This could become mandatory for all states and encompass physicians, if various planners get their way. The result of regulation is likely to be an obsession with cost at the expense of high-quality care.

The AMA has petitioned federal court to join the State of North Carolina in a suit aimed at voiding the law. But, adjudication can take many months. Meanwhile, physicians in many parts of the country are seeking adequate representation on local planning boards, showing up at public hearings pursuant to the law and otherwise fighting the great potential danger. For the moment, there is no other game in town.

—PUBLIC AFFAIRS DIVISION, AMA

MSMA Members Receive 50-Year Pins

The year, 1976, marks the completion of 50 years as physicians by 31 members of the Missouri State Medical Association.

The MSMA annually presents a gold 50-Year Pin to each member who has attained this distinguished

accomplishment in honor and recognition of his dedicated service as a physician throughout these many years.

Members who have received the 50-Year Pin this year are the following:

HOLLIS N. ALLEN, M.D.
St. Louis

GERALD BARRY, M.D.
Kansas City

JOSEPH A. BAUER, M.D.
St. Louis

RICHARD R. BECKER, M.D.
Kansas City

RALPH BERG, M.D.
St. Louis

RALPH COFFEY, M.D.
Kansas City

MAX DEUTCH, M.D.
St. Louis

AVERY DRAKE, M.D.
Phoenix, Ariz.

THOMAS L. DWYER, M.D.
Mexico

NORMA FARMER, M.D.
Farmington

HAROLD H. FELLER, M.D.
St. Louis

PAUL A. GEMPEL, M.D.
Shawnee Mission, Kan.

JOHN HARTWIG, M.D.
St. Louis

LEOPOLD HOFSTATTER, M.D.
St. Louis

J. HARVEY JENNETT, M.D.
Kansas City

E. LAWRENCE KEYES, M.D.
Clayton

JOHN M. McCAUGHAN, M.D.
St. Louis

JOHN W. McHANEY, M.D.
Jefferson City

JOHN G. McSWINEY, M.D.
St. Louis

BERNARD J. MACAULEY, M.D.
Doniphan

A. R. MADDUX, M.D.
Sedalia

FRANK G. MAYS, M.D.
Washington

OLIVER C. PFEIFER, M.D.
St. Louis

J. A. SCOPELITE, M.D.
St. Louis

L. M. SHAPIRO, M.D.
Kansas City

JOHN EARL SMITH, M.D.
St. Louis

HENRY P. THYM, M.D.
Ballwin

EDWIN F. VITT, M.D.
St. Louis

J. NEWTON WAKEMAN, M.D.
Springfield

O. R. WITHERS, M.D.
Lee's Summit

BENNETT R. WOOD, M.D.
St. Louis

Continuing Education Coming Events

The continuing medical education accreditation program of the MSMA has full approval by AMA's Council on Medical Education. The institutions and functions listed here qualify for Category I credit for the AMA Physician's Recognition Award. All accredited institutions in Missouri are invited to send this information for listing in MISSOURI MEDICINE. Please remember to include name of individual who can be contacted at your institution for additional information about your CME events.

Ed Bixby Institute for Postgraduate Education

Research Medical Center
2316 E. Meyer Blvd.
Kansas City 64132

- Aug. 25 Medical and Surgical Treatment of Arthritis
- Oct. 6 Recent Advances in Cardiology
- Dec. 1 Current Concepts of Immune Disorders

Menorah Medical Center

4949 Rockhill Rd., Kansas City 64110
(816) 276-8095
Contact: Carol G. Hamilton, Coordinator

- Nov. 10-12 Clinical Advances in Pediatrics

St. Louis University Medical Center

Continuing Education
1402 S. Grand Blvd., St. Louis 63104
(314) 664-9800
Contact: John A. Grellner, Director

- Aug. 21-22 Nuclear Medicine Board Examination Review

University of Missouri-Columbia School of Medicine

Continuing Education/Extension
M-175 Medical Center, Columbia 65201
(314) 882-2256
Contact: Gail Bank, Exec. Director

- Sept. 21-22 18th Annual Midwest Interprofessional Seminar—"Diseases Common to Animals and Man"
- Sept. 22-23 Growth and Feeding in Infancy and Childhood
- Oct. 1-2 M.D. Day

University of Missouri-Kansas City School of Medicine— Kansas City Southwest Clinical Society

Continuing Medical Education
2220 Holmes St., Kansas City 64108
(816) 471-3876
Contact: Alta Bingham

- Sept. 13-17 Cardiology for the Consultant
(Sponsored by American College of Cardiology)
- Sept. 24-25 Long Weekend—Dermatology/Gynecology
- Oct. 21-23 Annual Fall Clinical Conference, K.C. Southwest Clinical Society
- Nov. 19-20 Long Weekend—Neurology/Pharmacology
- Dec. 8-11 The Heart-1976—Current Topics in Cardiology

Washington University School of Medicine

660 S. Euclid Ave., St. Louis 63110
(314) 454-2515
Contact: Loretta Giacoletto

- Sept. 23-24 Clinical Allergy for Practicing Physicians
- Nov. 12-14 Third Annual Symposium: Anesthesia and the Geriatric Patient
- Dec. 5 Current Topics in Diabetes

The Edward Mallinckrodt Institute of Radiology

510 S. Kingshighway, St. Louis 63110
(314) 454-2291
Contact: Ronald G. Evens, M.D.

- Sept. 13 Fifth Wendell G. Scott Lecture

The Kansas City Society of Ophthalmology and Otolaryngology will hold its Annual Clinical Meeting on December 9-10 at the Hilton Plaza Inn in Kansas City. This CME offering meets the criteria for 14 hours credit in Category I. For reservations or more information, contact Eugene Bortnick, M.D., president, or Roger A. Weiss, executive director, at 3036 Gillham Rd., Kansas City 64108. Telephone—(816) 531-8432.

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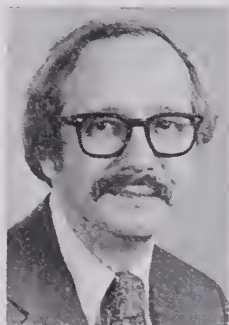
St. Louis, Mo. 63102

From the Medical Schools



ST. LOUIS UNIVERSITY

Raul Mercado, Jr., M.D., has been appointed chairman of the Department of Radiation Oncology. Previously, Dr. Mercado had been chief of the Clinical Investigations Branch, Division of Cancer Treatment, National Cancer Institute, National Institutes of Health.



Dr. Mercado

A native of San German, Puerto Rico, Dr. Mercado received his M.D. from St. Louis University in 1951. He took his internship at Arecibo District Hospital, Arecibo, Puerto Rico and his residency

in Radiology at University Hospital, Baltimore, Md.

The Department of Radiation Oncology is a new department within the School of Medicine. St. Louis University is one of the few medical schools in the United States to offer such a curriculum.

Nearly \$1 million in cancer research awards have been received by *Maurice Green, Ph.D.*, director of the Institute for Molecular Virology. Effective from June 1, 1976 to May 31, 1977, the three awards are from the National Cancer Institute of the National Institutes of Health.

"Replication of RNA Tumor Viruses" will be supported by a grant of \$94,004 in the first year of a three-year study. A research contract, "Search for Virus-Specific Genetic Material in Human Cancer and Studies on the Mechanism of Oncogenesis by RNA Tumor Viruses," will award \$261,559. A second research contract, "Search for Virus-Specific Genetic Material in Human Cancer and Studies on the Mechanism of Oncogenesis by DNA Tumor Viruses," will award \$642,842.

Appointed to the faculty of the School of Medicine in 1956, Dr. Green is a professor of Microbiology in addition to serving as director of the Institute.

UNIVERSITY OF MISSOURI-COLUMBIA

Brent M. Parker, M.D., a cardiologist on the staff of the UMC Medical Center for the past three

years, has been appointed Chief of Staff and will take over his new duties September 1.

The newly created position includes responsibilities as associate dean for clinical affairs of the UMC medical school. Dr. Parker also will serve as an associate director of University Hospital and Clinics.

A committee of Medical Center clinicians chosen by their departments made recommendations for the appointment. Final selection was made after consultation with other staff members.

Dr. Parker came to the Medical Center in 1973 after nearly 15 years on the faculty of the Washington University School of Medicine in St. Louis and as a practicing physician at Barnes Hospital. There he was co-director of the Cardiovascular Division of the Department of Medicine, chief of the Adult Catheterization Unit and cardiac consultant to the Division of Thoracic Surgery.

Since joining the UMC faculty as professor of medicine, Dr. Parker has served as chief of clinical cardiology and been responsible for the medical students' elective program in cardiology. Last year, the third and fourth year students voted him the "Golden Apple Award" for excellence in teaching.

Dr. Parker was graduated cum laude from Washington University medical school in 1952. After internship and a year of residency at Cornell University and New York Hospital he returned to St. Louis in 1955 as assistant resident at Barnes and spent two more years as a research fellow in cardiovascular disease, working under Drs. *John R. Smith* and *Carl V. Moore*.

From 1957 to 1959 he was a clinical associate in medicine and cardiology at the University of Oregon medical school. He joined the faculty at Washington University in 1959 where he remained until 1973.

Dr. Parker's research interests are broad and include a recent study of long distance runners' hearts, pulmonary hypertension and digitalis assays.



Dr. Parker

WASHINGTON UNIVERSITY

The School of Medicine has received a five-year grant of nearly \$3 million from the National Heart and Lung Institute to provide support for Mallinckrodt Institute of Radiology's continuing research efforts with the application of cyclotron-produced isotopes in biology and medicine.

The grant also will allow the School to purchase a second cyclotron which will make Washington University's the only medical center in the world with two cyclotrons.

Michel M. Ter-Pogossian, Ph.D., director of the Division of Radiation Sciences and professor of radiology, is the principal investigator.

Thomas B. Ferguson, M.D., clinical professor of cardiothoracic surgery and attending surgeon at Barnes Hospital, has been chosen as a representative from the American Board of Medical Specialties to the Coordinating Council on Medical Education (CCME). The five parent organizations from which the Council membership is drawn are the American Board of Medical Specialties, the American Hospital Association, the American Medical Association, the Association of American Medical Colleges and the Council of Medical Specialty Societies.

W. Edward Lansche, M.D., instructor of clinical orthopedic surgery, is the new president of the Medical Center Alumni Association. Other officers are *George B. Rader*, M.D., instructor in clinical surgery, past-president; *Mary Langston Parker*, M.D., associate professor of preventive medicine and director of the University Student Health Services, president-elect; *John F. Bergmann*, M.D., assistant professor of clinical psychiatry, vice-president; and *Gordon W. Philpott*, M.D., Harry Edison Professor of Surgery, secretary-treasurer.

UNIVERSITY OF MISSOURI-KANSAS CITY

Two distinguished physicians have contributed to the educational programs of the School of Medicine by serving as visiting docents. *Dr. C. Barber Mueller* made rounds on medicine and surgery, met with the students and presented a lecture on "McMaster and the UMKC School of Medicine: A Comparison." Dr. Mueller has served as the chairman of surgery at McMaster where he is now a professor of surgery. He is the editor of *The Canadian Journal of Surgery*.

Dr. Mitchell V. Kaminsky also joined in teaching rounds, presented several seminars to members of

the staff and discussed "Hyperalimentation: Practice and Problems" at the Noon University Hour. A surgeon, he is serving as assistant chief, Physical Sciences Division at the United States Army Medical Research Institute of Infectious Diseases, Fort Detrick, Md.

Dr. Nancy L. Abdou, doцент and associate professor, has been awarded a Research Grant from the Division of Cancer Research Resources and Centers of the National Cancer Institute for a Clinical Cancer Education Program. The Grant became effective on July 1 and extends for two years. It provides support for the personnel and supplies necessary to extend and strengthen instruction in oncology throughout the curriculum.

The Jackson County Medical Society has made another generous donation from the Scholarship Fund to assist two students.

In August, ten students are benefitting from one-month preceptorships in Family Practice and Medicine as a part of the continuing emphasis on primary care preceptorship experiences in the course of the medical curriculum. The ten students are with physicians in Florissant, Poplar Bluff and Kansas City.

This preceptorship program receives important support for a recently reviewed award from the Department of Health and Welfare Public Health Service to *Dr. Lee Langley*, Associate Dean. This renewal is for one year in the amount of \$57,819.00.

Dr. Richardson K. Noback was awarded a Special Projects Grant from the Department of Health, Education and Welfare Public Health Service to assist with a project to shorten the period of training and to identify individuals who will practice in shortage areas. This is for a one-year period which began on July 1.





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New Members

Elipidio Y. Alcancia, M.D., 1423 N. Jefferson, Springfield 65802, has become a member of Greene County Medical Society. Dr. Alcancia is a native of the Philippines, received his preliminary education at Letran College and his M.D. degree at the University of the East in 1963. He specializes in radiation oncology.

Louis M. Alpern, M.D., Barnes Hospital Plaza, St. Louis 63110, has become a member of St. Louis Medical Society. Dr. Alpern is a native of Pennsylvania, received his preliminary education at Columbia College and his M.D. degree at Harvard Medical College in 1974. He specializes in ophthalmology.

Shane L. Bennoch, M.D., 1423 N. Jefferson, Springfield 65802, has become a member of Greene County Medical Society. Dr. Bennoch is a native of Belfast, New Ireland, received his preliminary education at Memphis State University and his M.D. degree at the University of Arkansas in 1968. He specializes in emergency medicine.

Harold L. Christensen, M.D., 1550 Sunshine, Springfield 65804, has become a member of Greene County Medical Society. Dr. Christensen is a native of Oak Park, Ill., received his preliminary education at the University of Illinois and his M.D. degree at the University of Illinois in 1968. He specializes in cardiology and internal medicine.

Gerald K. Claycomb, M.D., 5535 Delmar, St. Louis 63112, has become a member of St. Louis Medical Society. Dr. Claycomb is a native of Missouri, received his preliminary education at the University of Missouri and his M.D. degree at the University of Missouri in 1967. He specializes in radiology.

Douglass D. Collins, M.D., Professional Bldg., Springfield 65806, has become a member of Greene County Medical Society. Dr. Collins is a native of Granite City, Ill., received his preliminary education at Kent State University and his M.D. degree at Ohio State in 1969. He specializes in pediatrics.

Shelby Deckard, M.D., 209 Professional Bldg., Springfield 65806, has become a member of Greene County Medical Society. Dr. Deckard is a native of Springfield, received his preliminary education at Southwest Missouri State University and his M.D. degree at the University of Missouri in 1971. He specializes in internal medicine.

Jeanne M. DeMotte, M.D., Highway 13, South, P.O. Box 68, Richmond 64085, has become a member of Lafayette-Ray County Medical Society. Dr. DeMotte is a native of Clinton, Okla., received her preliminary education at Emory University and her M.D. degree at the University of Miami in 1973. She is in general practice.

Jose B. Faraon, M.D., 2525 Euclid Ave., Kansas City 64127, has become a member of Jackson County Medical Society. Dr. Faraon is a native of the Philippines, received his preliminary education at the University of the Philippines and his M.D. degree at the University of the Philippines in 1953. He specializes in pathology.

James E. Fite, M.D., 1423 Jefferson, Springfield 65802, has become a member of Greene County Medical Society. Dr. Fite is a native of Nashville, received his preliminary education at Northeastern Oklahoma State University and his M.D. degree at the University of Oklahoma in 1974. He specializes in emergency medicine.

David J. Harris, M.D., 24th and Gillham Rd., Kansas City 64108, has become a member of Jackson County Medical Society. Dr. Harris is a native of New York, N. Y., received his preliminary education at Oberlin College and his M.D. degree at the University of Rochester in 1964. He specializes in pediatrics.

Craig Holliday, M.D., VA Hospital, St. Louis 63125, has become a member of St. Louis Medical Society. Dr. Holliday is a native of Illinois, received his preliminary education at Loyola University and his M.D. degree at St. Louis University in 1975. He specializes in psychiatry.

Richard A. Holmes, M.D., 807 Stadium, Columbia 65201, has become a member of Boone County Medical Society. Dr. Holmes received his M.D. degree at Temple University in 1958. He specializes in nuclear medicine and internal medicine.

Trygve O. Honaas, M.D., Doctors' Park, Cape Girardeau 63701, has become a member of Cape Girardeau County Medical Society. Dr. Honaas is a native of Minneapolis, Minn., received his preliminary education at the University of Minnesota and his M.D. degree at the University of Minnesota in 1968. He specializes in gastroenterology and internal medicine.

Warford B. Johnson, M.D., 1443 N. Robberson, Springfield 65802, has become a member of Greene County Medical Society. Dr. Johnson is a native of Detroit, Mich., received his preliminary education

at Washington University and his M.D. degree at Baylor College in 1970. He specializes in internal medicine.

James C. Kelly, M.D., 1211 S. Glenstone, Springfield 65804, has become a member of Greene County Medical Society. Dr. Kelly is a native of Motherwell, Scotland, received his preliminary education at the University of Kansas and his M.D. degree at the University of Kansas in 1972. He specializes in pediatrics.

Tamer G. Khalil, M.D., 440 S. Market, Springfield 65802, has become a member of Greene County Medical Society. Dr. Khalil is a native of Kafarhata, Lebanon, received his preliminary education at American University and his M.D. degree at Damascus University in 1965. He specializes in internal medicine and chest medicine.

Brarath A. Krishnasamy, M.D., 510 S. Kingshighway, St. Louis 63110, has become a member of St. Louis Medical Society. Dr. Krishnasamy is a native of Ceylon, received his preliminary education at Loyola College and his M.D. degree at Andhra Medical College in 1969. He specializes in radiation oncology and nuclear medicine.

Roger D. Kunz, M.D., P.O. Box 975, Columbia 65201, has become a member of Boone County Medical Society. Dr. Kunz is a native of Clinton, Ia., received his preliminary education at Cornell College and his M.D. degree at the University of Iowa in 1969. He specializes in anesthesiology.

William E. Larsen, M.D., 2929 Baltimore, Kansas City 64108, has become a member of Jackson County Medical Society. Dr. Larsen is a native of Iola, Kan., received his preliminary education at the University of Wichita and his M.D. degree at the University of Kansas in 1946. He specializes in internal medicine and hematology.

Bert H. Leming, M.D., 12312 Olive St. Rd., St. Louis 63141, has become a member of St. Louis County Medical Society. Dr. Leming is a native of Greeneville, Tenn., received his preliminary education at Berea College and his M.D. degree at the University of Tennessee in 1957. He is in general practice.

Michael H. Luzecky, M.D., 609 Cherry, Springfield 65806, has become a member of Greene County Medical Society. Dr. Luzecky is a native of San Francisco, Calif., received his preliminary education at St. Louis University and his M.D. degree at the University of Missouri in 1969. He specializes in neurology.

Thomas W. Lynch, M.D., Professional Bldg., Springfield 65806, has become a member of Greene County Medical Society. Dr. Lynch is a native of St. Louis, received his preliminary education at Drury College and his M.D. degree at the University of Missouri in 1969. He specializes in dermatology.

Maurice I. Marks, M.D., 4949 Roekhill Rd., Kansas City 64110, has become a member of Jackson County Medical Society. Dr. Marks is a native of Atlanta, Ga., received his preliminary education at Emory University and his M.D. degree at Emory University in 1938. He specializes in general surgery.

John C. Meyer, M.D., 401 Keene, Columbia 65201, has become a member of Boone County Medical Society. Dr. Meyer is a native of Springfield, Ill., received his preliminary education at the University of Illinois and his M.D. degree at the University of Illinois in 1973. He specializes in pediatrics.

Lewis M. Neblett, M.D., Smith-Glynn-Callaway Clinie, Springfield 65804, has become a member of Greene County Medical Society. Dr. Neblett is a native of Staten Island, N. Y., received his pre-

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liminary education at Duke University and his M.D. degree at the University of Tennessee in 1968. He specializes in otolaryngology and maxillofacial plastic surgery.

Elsie M. Neeld, M.D., 6651 Chippewa, St. Louis 63109, has become a member of St. Louis County Medical Society. Dr. Neeld is a native of Clearwater, Fla., received her preliminary education at Vanderbilt University and her M.D. degree at Vanderbilt University in 1968. She specializes in diagnostic radiology.

Henry A. Odujebe, M.D., 2601 N. Whittier, St. Louis 63113, has become a member of St. Louis Medical Society. Dr. Odujebe is a native of Nigeria and received his M.D. degree at the University of Baghdad in 1971. He specializes in surgery.

Robert C. Powell, M.D., 5212 Rockhill Rd., Kansas City 64110, has become a member of Jackson County Medical Society. Dr. Powell is a native of Columbus, Ohio, received his preliminary education at Duke University and his M.D. degree at Duke University in 1975. He specializes in psychiatry.

Michael B. Rumelt, M.D., 522 N. New Ballas Rd., St. Louis 63141, has become a member of St.

Louis County Medical Society. Dr. Rumelt is a native of San Antonio, Tex., received his preliminary education at Lamar State and his M.D. degree at Washington University in 1966. He specializes in ophthalmology.

Thomas J. Safley, III, M.D., 17221 E. 23rd, Independence 64057, has become a member of Jackson County Medical Society. Dr. Safley is a native of New Orleans, La., received his preliminary education at Vanderbilt University and his M.D. degree at Tulane University in 1966. He specializes in general surgery.

John T. Schwent, D.O., 125 Mississippi Ave., Crystal City 63019, has become a member of Jefferson County Medical Society. Dr. Schwent is a native of St. Louis, received his preliminary education at the University of Mississippi and his M.D. degree at Kirksville College of Osteopathic Medicine in 1974. He is in family practice.

Farzana Q. Siddiqui, M.D., 216 S. Kingshighway, St. Louis 63141, has become a member of St. Louis Medical Society. Dr. Siddiqui is a native of India and received her M.D. degree at Osmania Medical College in 1969. She specializes in psychiatry.

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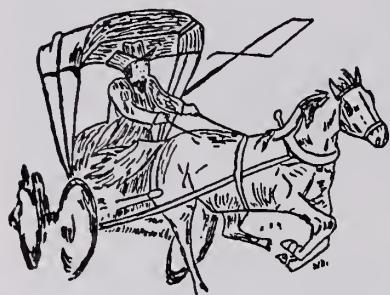
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Missouri Medicine in Review



FORTY YEARS AGO

On July 1, 1936, Dr. W. McKim Marriott resigned as Dean of Washington University Medical School, Professor of Pediatrics and Physician-in-Chief of the St. Louis Children's Hospital to become Dean of the Medical School and Director of Medical Research at the University of California.

The departure from St. Louis of such a distinguished figure in medicine prompts calling attention to his career. He first studied the clinical aspects of pediatrics with the late Dr. John Howland at Johns Hopkins and mastered them so speedily and so well that he was made Professor of Pediatrics at Washington University and Physician-in-Chief of the St. Louis Children's Hospital in 1917. He coined the word "anhydremia." Also, in a masterful monograph on the subject, he showed to what great extent the symptoms of acute "intestinal intoxication" and "shock" were due to reduction of circulating blood volume resulting from dehydration.

Russia recently passed a law by which it joins the rest of the civilized world in its attitude toward abortions. Of this change, *Time* says, "In practical Joseph Stalin's quiet process of throwing overboard unworkable schemes for tampering with fundamentals, the Soviet Government decreed last week reversal of the Communist laws under which abortion has been free and easy throughout Russia. Soviet gynecologists have convinced the Kremlin that 16 years of easy abortion on a nationwide scale have impaired the health of hundreds of thousands of Russian women, however much it achieved in realizing the Communist ideals of equality of the sexes and a single Soviet standard of morality."

TWENTY-FIVE YEARS AGO

The Missouri Legislature is now in recess until September 10. All measures which were not dis-

posed of prior to the beginning of the recess will be considered when the legislators return.

Legislation passed: S.B. 137 provides that the ceiling of \$750 for medical and hospital expenses for injured persons under the Workmen's Compensation Act during the first 90 days of care shall be removed. It further provides for the creation of a rehabilitation set-up in the Workmen's Compensation Department.

The bill contains the following phrase which was opposed by the Association: "Nothing in this act shall prevent an employee being provided treatment for his injuries by prayer or spiritual means, if the employer does not object to such treatment." (Efforts were made to have this phrase removed from the bill without success.)

James R. McVay, M.D., Kansas City, was re-elected Chairman of the Council on Medical Service of the American Medical Association at a meeting on August 4. This is Dr. McVay's fourth consecutive chairmanship of this Council.

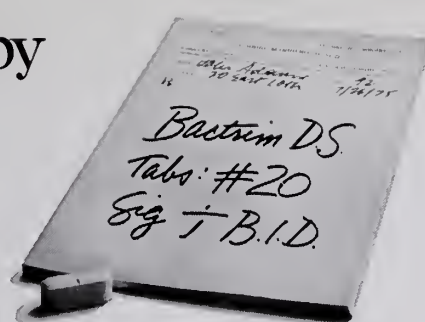
TEN YEARS AGO

Richard H. Kiene, M.D., Kansas City orthopedic surgeon and AMA Delegate from Missouri, has been promoted to the rank of Rear Admiral in the Medical Corps of the U. S. Naval Reserve. He served during World War II with U. S. naval forces in the South Pacific and has remained active in the Reserve since then. Dr. Kiene is one of only three medical officers in the country to be selected for promotion to the rank of Rear Admiral.

Herbert R. Domke, M.D., has been named director of Health and Hospitals for St. Louis, succeeding Dr. Frank F. Gilmore who resigned at the end of last year. Dr. Domke comes to St. Louis from Pittsburgh, Pa., where he served as Director of the Allegheny County Health Department.

Dr. C. Read Boles, St. Louis, has been named president-elect of the Washington University Medical Alumni Association. Dr. C. Alan McAfee, St. Louis, will serve as president during 1966-1967. Dr. Guy Magnus, University City, was elected vice-president of the group.

10-day Bactrim therapy outperforms 10-day ampicillin therapy.



In a multicenter, double-blind study of patients with chronic or frequently recurrent urinary tract infection, Bactrim 10-day therapy outperformed ampicillin 10-day therapy by 27.2%, when comparing patients who maintained clear cultures for eight weeks. Criterion for "clear culture" was 1000 or fewer organisms/ml of urine.

While adverse reactions noted in this study were mild (e.g., vomiting, nausea, rash), more serious reactions can occur with these drugs. See manufacturer's product information for complete listing. Maintain adequate fluid intake; perform frequent CBC's and urinalyses with microscopic examination.

Note: Bactrim tablets were used in these clinical trials. Bioequivalency studies show one Bactrim DS double strength tablet is equivalent to two Bactrim tablets.

For chronic or frequently recurrent cystitis and pyelonephritis due to susceptible organisms.

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Chronic urinary tract infections evidenced by persistent bacteriuria (symptomatic or asymptomatic), frequently recurrent infections (relapse or reinfection), or infections associated with urinary tract complications, such as obstruction. Primarily for cystitis, pyelonephritis or pyelitis due to susceptible strains of *E. coli*, *Klebsiella-Enterobacter*, *Proteus mirabilis*, *Proteus vulgaris* and *Proteus morganii*.

NOTE: The increasing frequency of resistant organisms limits the usefulness of antibacterials, especially in these urinary tract infections. The recommended quantitative disc susceptibility method (*Federal Register*, 37:20527-20529, 1972) may be used to estimate bacterial susceptibility to Bactrim. A laboratory report of "Susceptible to trimethoprim-sulfamethoxazole" indicates an infection likely to respond to Bactrim therapy. If infection is confined to the urine, "Intermediate susceptibility" also indicates a likely response. "Resistant" indicates that response is unlikely.

Contraindications: Hypersensitivity to trimethoprim or sulfonamides; pregnancy; nursing mothers.

Warnings: Deaths from hypersensitivity reactions, agranulocytosis, aplastic anemia and other blood dyscrasias have been associated with sulfonamides. Experience with trimethoprim is much more limited but occasional interference with hematopoiesis has been reported as well as an increased incidence of thrombopenia with purpura in elderly patients on certain diuretics, primarily thiazides. Sore throat, fever, pallor, purpura or jaundice may be early signs of serious blood disorders. Frequent CBC's are recommended; therapy should be discontinued if a significantly reduced count of any formed blood element is noted. **Data are insufficient to recommend use in infants and children under 12.**

Precautions: Use cautiously in patients with impaired renal or hepatic function, possible folate deficiency, severe allergy or bronchial asthma. In patients with glucose-6-phosphate dehydrogenase deficiency, hemolysis, frequently dose-related, may occur. During therapy, maintain adequate fluid intake and perform frequent urinalyses, with careful microscopic examination, and renal function tests, particularly where there is impaired renal function.

Adverse Reactions: All major reactions to sulfonamides and trimethoprim are included, even if not reported with Bactrim. *Blood dyscrasias:* Agranulocytosis, aplastic anemia, megaloblastic anemia, thrombopenia, leukopenia, hemolytic anemia, purpura, hypoproliferative thrombinemia and methemoglobinemia. *Allergic reactions:* Erythema

BactrimTM DS

(160 mg trimethoprim and 800 mg sulfamethoxazole)
Double Strength tablets
Just 1 tablet B.I.D.

BactrimTM

(80 mg trimethoprim and 400 mg sulfamethoxazole)
2 tablets B.I.D.



multiforme, Stevens-Johnson syndrome, generalized skin eruptions, epidermal necrolysis, urticaria, serum sickness, pruritus, exfoliative dermatitis, anaphylactoid reactions, periorbital edema, conjunctival and scleral injection, photosensitization, arthralgia and allergic myocarditis. *Gastrointestinal reactions:* Glossitis, stomatitis, nausea, emesis, abdominal pains, hepatitis, diarrhea and pancreatitis. *CNS reactions:* Headache, peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo, insomnia, apathy, fatigue, muscle weakness and nervousness. *Miscellaneous reactions:* Drug fever, chills, toxic nephrosis with oliguria and anuria, periarteritis nodosa and L. E. phenomenon. Due to certain chemical similarities to some goitrogens, diuretics (acetazolamide, thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia in patients; cross-sensitivity with these agents may exist. In rats, long-term therapy with sulfonamides has produced thyroid malignancies.

Dosage: Not recommended for children under 12. Usual adult dosage: 1 DS tablet (double strength), 2 tablets (single strength) or 4 teasp. (20 ml) b.i.d. for 10-14 days.

For patients with renal impairment:

Creatinine Clearance (ml/min)	Recommended Dosage Regimen
Above 30	Usual standard regimen
15-30	1 DS tablet (double strength), 2 tablets (single strength) or 4 teasp. (20 ml) every 24 hours
Below 15	Use not recommended

Supplied: Double Strength (DS) tablets, each containing 160 mg trimethoprim and 800 mg sulfamethoxazole, bottles of 100; Tel-E-Dose® packages of 100. Tablets, each containing 80 mg trimethoprim and 400 mg sulfamethoxazole—bottles of 100 and 500; Tel-E-Dose® packages of 100; Prescription Paks of 40, available singly and in trays of 10.

Oral suspension, containing in each teaspoonful (5 ml) the equivalent of 40 mg trimethoprim and 200 mg sulfamethoxazole; fruit-flavored—bottles of 16 oz (1 pint).

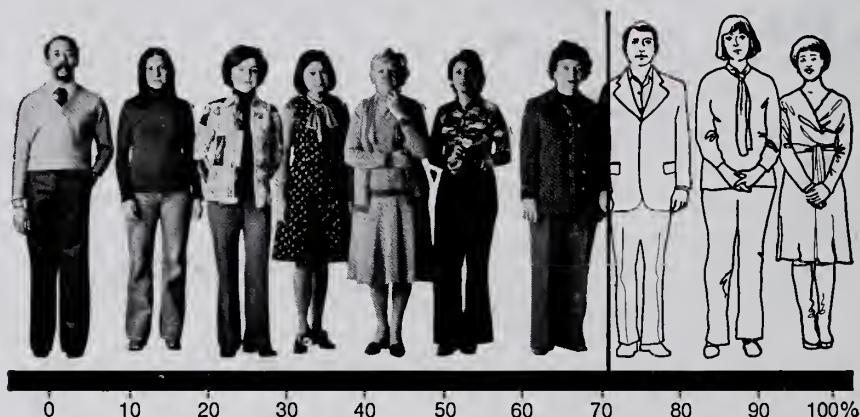


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In a multicenter study of patients with chronic or frequently recurrent urinary tract i

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Bactrim was 27.2%* more effective than ampicillin in keeping patients infection-free for 8 weeks.†



Bactrim—70.5% of 78 patients infection-free at 8 weeks.



ampicillin—55.4% of 74 patients infection-free at 8 weeks.

*This percentage is arrived at by the statistical method of dividing the difference between Bactrim and ampicillin results (15.1%) by the percent of ampicillin results (55.4%).

†Data on file, Hoffmann-La Roche Inc., Nutley, New Jersey 07110

BactrimTM DS

(160 mg trimethoprim and 800 mg sulfamethoxazole)

Double Strength tablets Just 1 tablet B.I.D.

Please see summary of product information on preceding page.

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Note: Bactrim tablets were used in these clinical trials. Bioequivalency studies show one Bactrim DS double strength tablet is equivalent to two Bactrim tablets.

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119th MSMA Annual Session
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Both often



Predominant
psychoneurotic
anxiety

Associated
depressive
symptoms

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Tension and anxiety states; somatic complaints which are concomitants of emotional factors; psychoneurotic states manifested by tension, anxiety, apprehension, fatigue, depressive symptoms or agitation; symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in skeletal muscle spasm due to reflex spasm to local pathology, spasticity caused by upper motor

neuron disorders, athetosis, stiff-man syndrome, convulsive disorders (not for sole therapy).

Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma; may be used in patients with open angle glaucoma who are receiving appropriate therapy.

Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive dis-

orders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms (similar to those with barbiturates and alcohol) have occurred following abrupt discontinuance (convulsions, tremor, abdominal and muscle cramps, vomiting and sweating). Keep addiction-prone individuals under careful

respond to one

According to her major symptoms, she is a psychoneurotic patient with severe anxiety. But according to the description she gives of her feelings, part of the problem may sound like depression. This is because her problem, though primarily one of excessive anxiety, is often accompanied by depressive symptomatology. Valium (diazepam) can provide relief for both—as excessive anxiety is relieved, the depressive symptoms associated with it are also relieved.

There are other advantages in using Valium for the management of psychoneurotic anxiety with secondary depressive symptoms: the psychotherapeutic effect of Valium is pronounced and rapid. This means that improvement is usually apparent

in the patient within a few days rather than in a week or two, although it may take longer in some patients. In addition, Valium (diazepam) is generally well tolerated; as with most CNS-acting agents, caution patients against hazardous occupations requiring complete mental alertness.

Also, because the psychoneurotic patient's symptoms are often intensified at bedtime, Valium can offer an additional benefit. An *h.s.* dose added to the *b.i.d.* or *t.i.d.* treatment regimen can relieve the excessive anxiety and associated depressive symptoms and thus encourage a more restful night's sleep.



Valium[®]
(diazepam) [Ⓢ]

2-mg, 5-mg, 10-mg scored tablets

in psychoneurotic
anxiety states
with associated
depressive symptoms

relief because of their predisposition to habituation and dependence. In pregnancy, lactation or women of child-bearing age, weigh potential benefit against possible hazard.

Precautions: If combined with other psychotropics or anticonvulsants, consider the full pharmacology of agents employed; drugs such as phenothiazines, sedatives, barbiturates, MAO inhibitors or other antidepressants may potentiate sedation. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies.

Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle

spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.



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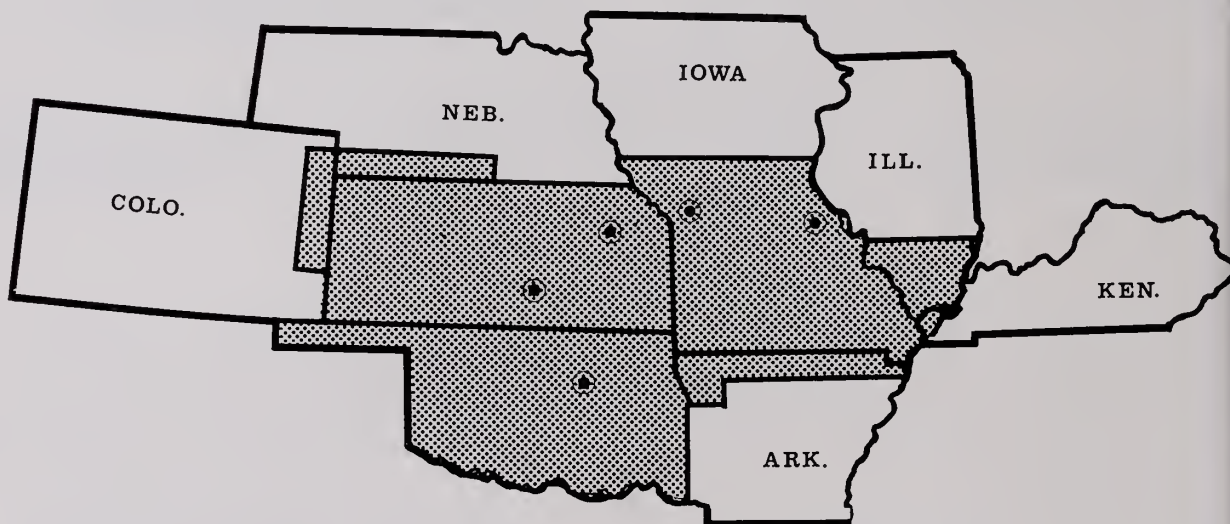
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NEWS ROUND - UP

September, 1976

Interim Session schedule set

The work schedule for the first Interim Session of the Missouri State Medical Association House of Delegates has been determined and official notification has been mailed to each county medical society Delegate and Alternate.

All members of the Association are invited to attend the Interim Session, which will be held Nov. 3-4 (Wednesday and Thursday), 1976, at Tan-Tar-A Resort at the Lake of the Ozarks.

Delegate Registration will begin at 11 a.m., Wednesday, Nov. 3. The Opening Session will be called to order at 2:30 p.m., Wednesday. Following presentations by the Committee on Legislative Affairs and the Ad Hoc Committee on Professional Liability, all recommendations and resolutions will be referred to one of two Reference Committees.

Reference Committees will meet immediately following the Opening Session and continue as late as necessary. Reference Committee reports will be prepared in time for consideration by the House on Thursday morning.

The Final Session of the House will begin with a breakfast from 7 to 8:30 a.m., Thursday. This will be

followed immediately by House action on the reports of the Reference Committees.

Resolutions to be considered at the Interim Session are limited to those dealing with state or national legislation. Resolutions must be submitted to MSMA Headquarters at least 20 days prior to the Session (October 13).

James T. Brown, M.D., Speaker of the MSMA House of Delegates, has issued a reminder that reservation and payment arrangements at Tan-Tar-A differ from those of other hotel facilities used for the Annual Session of the MSMA.

Those members desiring to register for the Interim Session should clip the Reservation Card below and mail it directly to Tan-Tar-A with a deposit of \$30. The deposit will be returned only if the resort is contacted well in advance of cancellation . . . if problems arise over the return of a deposit, members should contact MSMA Headquarters.

In addition, Tan-Tar-A will NOT accept credit cards, but WILL accept personal checks.

Mail the Reservation Card to : Reservations, Tan-Tar-A Resort, Osage Beach, Missouri 65065.

'MSMA INTERIM SESSION'
November 3/4, 1976

NAME _____

ADDRESS _____

CITY _____ STATE _____ ZIP _____ TELE.# _____

ARRIVAL DATE _____ DEPARTURE DATE _____

NUMBER OF PERSONS _____ NUMBER OF ROOMS _____

AMOUNT OF DEPOSIT _____

Accommodations will be available thru October 15, 1976. Reservations will be accepted and confirmed up to the opening day of the conference providing accommodations are still available. Reservations will run from 4:00 pm on day of arrival until 12:00 noon day of departure.

PLEASE LIST NAMES OF ALL PERSONS SHARING ACCOMMODATIONS

New law gives Swine Flu program push

Despite a shaky start and many uncertainties along the way, the Swine Flu Immunization Program is now steaming ahead with deliveries of vaccine scheduled for early October.

According to MSMA attorneys who have reviewed a limited liability law passed by Congress, the "Swine Flu Law" provides that anyone claiming injury from the vaccine or the administration of vaccine must file suit against the government IF the immunization has been provided at NO COST and IF the alleged injured has signed a written Informed Consent Form.

In a mass clinic situation, this should provide no problems. However, if a physician administers Swine Flu immunizations in his office and charges even a small amount to cover expenses, he apparently would not be covered under the law. His coverage would then resort to his own professional liability policy.

Additionally, even if the vaccine is provided and administered free, a physician or other health professional can be held liable for negligence. If the claimant successfully sues the government for damages, the government could then turn around and sue the health professional to recover losses and costs.

From the practical standpoint, it would seem that the major advantage of the law for

program participants would be the prevention of nuisance suits directly against the participant. Again, this holds true only if the immunizations are provided without cost.

MSMA attorneys stress that it is difficult to interpret a new statute and suggest that physicians contact their personal attorney if they have further questions.

Meanwhile, the Missouri Division of Health, which is spearheading the program, said that the arrival dates for vaccine had been moved back from earlier forecasts. The vaccine manufacturers announced they would not ship vaccine until the liability law takes effect on Sept. 30. That means that vaccine will probably not be available in most areas until at least the middle of October.

The Division said it has contacted physicians, nurses and other health personnel in most Missouri counties to establish systems for immunizing the public. The individual county programs are being set up by District Health officials with the Division coordinating the program statewide.

The Division is continuing to mail its "Swine Flu Report" to all Missouri physicians in order to keep them abreast of current happenings. If physicians have questions concerning the Swine Flu Program, they can call toll-free, 800-392-8269.

Primary is history; General Election awaits

By the time you read this newsletter, the August Primary Election will be history... how did your candidates do?

It was estimated prior to the Primary that 1.2 million people, less than half of those eligible, would vote for the candidates of their choice. If you were one of those who failed to vote, you can't complain about the outcome of the races.

However, you still have the General Election ahead of you. Mark down November 2, 1976, on your calendar now so that you, your family and your office personnel will take the time to express your opinions at the polls. Regardless of how trite it might sound, each vote DOES count and a concerted effort by physicians and their friends to mark their ballots could make a difference in close races.

Now that the Primary is over, it is time for physicians to select the candidates of their choice and assist those candidates during the weeks preceding the November election. Assistance can come in many forms and, be assured, candidates are appreciative of all the help they can get.

Are you or someone in your family especially interested in a particular candidate? If so, volunteer to work for his/her campaign. Every candidate needs volunteers who will give valuable time to help gather funds and votes.

Of course, campaign funds are always needed. Write a personal check and hand it to your candidate. It means a lot!

Another way to insure physician involvement

in the election of candidates is through contributions to MMPAC/AMPAC, the political arm of organized medicine. MMPAC and AMPAC are voluntary bipartisan committees which review the various candidates in state and national races and contribute funds to those candidates who will listen to medicine's point of view.

MMPAC and AMPAC are the physician's counterpart for the unions' powerful COPE and other political committees. Organized medicine cannot hope to match the funds available through the unions, but if enough MSMA members contribute, the money can be very important in selected races. Currently, only about 20 per cent of MSMA members are carrying the political load for the remainder of the members.

A general mailing soliciting PAC funds has recently been sent to MSMA members in an effort to increase membership and dollars for the important General Election this Fall. Make medicine's voice heard by sending \$100 for a Sustaining Membership, \$40 for a Family Membership or \$25 for a Physician Membership. Contributions to PAC should be made on personal, not corporate checks.

When you read the newspaper November 3, it will be too late to change the outcomes of the election. Medicine must work now to gain as much input as possible with the people who will be making the laws the next several years!!!

(A copy of MMPAC report filed with the appropriate supervisory officer is (or will be) available for purchase from the Superintendent of Documents, United States Government Printing Office, Washington, D.C. 20402)

Association monitors government meetings

A recent expansion of MSMA services to physician members has been the addition to staff of a Governmental Relations expert to deal with the ever-growing number of government agencies which have direct and indirect effect on the practice of medicine.

In the past two months David N. Carr, Director of Governmental Relations, has gained information and provided MSMA input by attending two important government-related meetings. Following are short excerpts from the meetings:

The sixth annual meeting of the American Association for Comprehensive Health Planning was held July 13-16 in Miami Beach. This conference brought together health planners, HSA board members and representatives of professional associations, academia and HEW to discuss the new health planning law. The nearly 1,000 registrants listened to Dr. Charles Edwards (former Undersecretary of Health), who sadly suggested that our national health policy is being set by politicians rather than by health professionals.

Other speakers included Spencer Johnson of the White House Domestic Council, Dr. David Rogers, President of the Robert Wood Johnson Foundation, and Dr. Harry Cain, Director to the HEW Bureau charged with implementing P.L. 93-641.

Other events included workshops on health plan development, rate review, certificate-of-need, national health goals and policy, the renewal of P.L. 93-641, data systems, primary care and others.

A general feeling of optimism permeated the conference. Most of the participants were very comfortable with their chances of meeting the requirements and aspirations Congress has established for P.L. 93-641. They see renewal next June as a "sure thing." There will undoubtedly be major debate, but the conference participants see any changes as probably organizational and not philosophical.

The AMA and the American Association of Medical Society Executives jointly sponsored a one-day seminar on health planning August 24 in Chicago. With HEW's continuing implementation of P.L. 93-641, it was felt medical executives needed to meet to discuss mutual concerns and seek compatible solutions. Over 225 persons met to discuss the following topics:

1. Plan development and national standards;
2. PSRO/HSA relationships, especially as they relate to data exchange;
3. Agency reviews, including certificate-of-need legislation and Section 1122 capital expenditure and appropriateness review;
4. Strategies for physician participation.

The participants included AMA staff knowledgeable in each area and top level HEW staff charged with implementing the various topics. Also present was Dr. Harry Cain, who directs HEW's activities in the planning area. Of particular interest were remarks made by Dr. Cain relative to next year's Congressional debate on renewal of P.L. 93-641. It is Dr. Cain's opinion that the debate will center on rate review, certificate-of-need and appropriations. Dr. Cain also suggested that it is "highly probable" that Congress will not soften the current initiatives in either rate review or certificate of need.

MSMA to seek Medicaid changes

The MSMA Council in a special telephone conference held August 31, agreed to work with the Missouri Association of Osteopathic Physicians and Surgeons and the Missouri Division of Family Services in establishing a more reasonable fee schedule for the state's Medicaid program.

The action came after the MSMA's Commission on Medical Economics reviewed a proposed Medicaid fee schedule set up by the Division of Family Services. The Commission expressed displeasure with the low reimbursement figures listed in the schedule and recommended that the rate of reimbursement for services be based upon an acceptable, reasonable, uniform statewide fee determined between the medical and osteopathic professions in the State of Missouri.

The Division of Family Services agreed to meet with representatives of MSMA and MAOPS in order to discuss more equitable payment for the 300 most common procedures performed under the Medicaid program.

The Council named a special committee to meet with MAOPS and the Division. Members of the Committee are Drs. Stanley Peterson, Springfield, Chairman; Leslie F. Bond, St. Louis; Rae Froelich, Lebanon; Max A. Heeb, Sikeston; and John H. Wells, Kansas City.

Laboratory reimbursement rules outlined by HEW

The Department of Health, Education and Welfare has requested the MSMA to inform members on certain Medicare reimbursement rules for laboratory services.

Medicare reimbursement rules require that the reasonable charge for a laboratory test that was performed by an independent laboratory, but billed by the attending physician, be related to the cost the physician incurred in obtaining the service for his patient.

The Medicare carriers are permitted to allow as reasonable a nominal charge by the physician for the drawing of specimens and handling expenses. However, charges representing merely a physician markup of the charges over and above that actually imposed by an independent laboratory for the test itself are improper.

Moreover, an independent laboratory not certified to perform a given test under Medicare may not be reimbursed with Medicare funds even though that test is billed through a physician.

In carrying out their responsibilities, Medicare carriers are required to determine the source of the lab service when the source is not indicated on the physician's bill. Where the service was performed by an independent lab, the carrier must determine that the laboratory is certified by Medicare to perform such tests and the appropriate payment to cover the laboratory's customary charge, rather than the physician's.

Review of Medicare claims indicate that some physicians continue to submit bills for lab tests without showing that the services were actually performed by independent laboratories.

Update of PSRO, HSA activities in Missouri

Activity in Missouri in the areas of Professional Standards Review Organizations, Health Service Agencies and proposed certificate-of-need legislation has taken place during the summer months.

PSRO

At the state level the initial organizational meeting for the purpose of establishing a statewide Professional Standards Review Council was held in Kansas City in early August. The meeting, called by DHEW officials, brought together representatives of the state's five PSROs and professional associations (MHA, MAOPS and MSMA). Representatives from the Bureau of Quality Assurance, which implements the PSRO Program, explained the functions of the Council and the process by which it will become operational.

As stated in the PSRO statute these functions include: (1) coordinating activities of and disseminating information and data among PSROs in the State; (2) reviewing PSRO reconsiderations; (3) reviewing PSRO sanction reports; (4) assuring that practitioners comply with the obligations of the law; and (5) assisting the Secretary of DHEW in developing a uniform data system, in evaluating PSRO performance and in replacing a terminated PSRO.

The makeup of the Council will

be one representative per PSRO, two from MHA, one from MAOPS, one from MSMA and four at-large (at least two of these appointed by the Governor). The four at-large positions can be physicians if they can be shown to represent the public.

MSMA has been requested to submit one nominee to DHEW to represent the Association.

HSA

HSA-I in Kansas City has completed its initial hiring of major staff positions and has taken the first several steps in its plan development process. Three task forces are being appointed and will concentrate on health status, health systems and minimum content/format.

HSA-II has not progressed a great deal in the past two months. The governing body is in the process of hiring their major support staff, but to date no official announcements have been made. The planning and review committees are meeting but no concrete proposals are yet evident.

HSA-III in St. Louis has completed its hiring process and has been concentrating on review and comment processes. September 1 has been announced as the date after which HSA-III will be accepting capital expenditure proposals for voluntary review.

HSA-IV in Springfield continues to move the fastest. The agency has drafted, put before the public and accepted its review procedures, guidelines and tentative criteria.

HSA-V has located in Poplar Bluff and has hired William Becker as executive director. Becker was formerly Assistant Director of the St. Louis CHP agency.

At the state level, the MSMA has been requested to name a representative to the State Health Coordinating Council established under P.L. 93-641.

Certificate-of-Need

Bill Mitchell, director of the State Health Planning and Development Agency, recently met with representatives of several professional associations, including MSMA, to discuss proposed certificate-of-need legislation.

Mitchell discussed the bill previously submitted to the General Assembly and what changes he hoped to make in order to achieve passage during 1977. Perhaps the most significant change is taking the staff responsibilities for review out of Mitchell's office and giving them to a new three-member commission established expressly for that purpose.

Local societies meeting set

A Meeting of County Medical Society Representatives has been scheduled October 22-23, 1976, at the Holiday Inn at the Lake of the Ozarks.

The meeting is a forum for open, roundtable-type discussions over matters of mutual interest to local medical societies and their officers.

The meeting will begin with a 3:00 p.m. to 5:00 p.m. session Friday, Oct. 22. On Saturday, the session will begin at 10:00 a.m., adjourn for lunch, and conclude about 4:30 p.m.

'M.D. Day' is planned

The 17th Annual "M.D. Day" will be held Oct. 1-2, 1976, at the Medical Center Auditorium of the University of Missouri-Columbia.

Manpower Conference on tap

The Missouri Health Manpower Conference will be held Wednesday, Sept. 29, at the Ramada Inn in Columbia. The conference, sponsored by the Missouri State Health Planning and Development Agency, is open to all interested persons.

Physicians reminded of tax

Physicians are being reminded by the Missouri Department of Revenue that if the physician dispenses drugs separate from his services and at a profit, those sales are subject to state sales tax.

Wesley E. Wilber, manager of the Sales and Use Tax Bureau, quotes the statutes dealing with physician dispensing:

"Section 144.010.1 (9) RSMo. 1969, and supplement thereto, provides that purchases of tangible personal property made by duly licensed physicians, dentists, and veterinarians and used in the practice of their professions are purchases for use or consumption and not for resale.

"If persons engaged in the medical profession, therefore, dispense drugs while consulting with patients and do not as such make a profit on the drugs, they are not subject to the sales tax. Their suppliers, however, are subject to the sales tax when selling drugs or supplies to them.

"However, when members of the medical profession dispense drugs separate from their services at a profit they are making retail sales subject to the sales tax. Such persons must register with the Sales Tax Bureau and submit returns.

"Information regarding registration can be obtained by contacting the Records and Registration Section, Sales Tax Bureau, P.O. Box 840, Jefferson City, MO 65101."

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in diuretic-responsive
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(furosemide) 20 mg and 40 mg

in hypertension.

A brief summary of the Prescribing Information for
Lasix® (furosemide) Tablets 20 mg and 40 mg

WARNING—Lasix (furosemide) is a potent diuretic which if given in excessive amounts can lead to a profound diuresis with water and electrolyte depletion. Therefore, careful medical supervision is required, and dose and dose schedule have to be adjusted to the individual patient's needs. (See under "Dosage and Administration.")

Indications—Lasix (furosemide) is indicated for the treatment of the edema associated with congestive heart failure, cirrhosis of the liver, and renal disease, including the nephrotic syndrome.

Hypertension—Lasix (furosemide) may be used for the treatment of hypertension alone or in combination with other antihypertensive drugs. Hypertensive patients who cannot be adequately controlled with thiazides will probably also not be adequately controllable with Lasix (furosemide) alone.

CONTRAINDICATIONS—Because animal reproductive studies have shown that Lasix (furosemide) may cause fetal abnormalities, the drug is contraindicated in women of childbearing potential. (See "Additional Information.")

Lasix (furosemide) is contraindicated in anuria. If increasing azotemia and oliguria occur during treatment of severe progressive renal disease, the drug should be discontinued. In hepatic coma and in states of electrolyte depletion, therapy should not be instituted until the basic condition is improved or corrected. Lasix (furosemide) is contraindicated in patients with a history of hypersensitivity to this compound.

Warnings—Excessive diuresis may result in dehydration and reduction in blood volume, with circulatory collapse and with the possibility of vascular thrombosis and embolism, particularly in elderly patients. Excessive loss of potassium in patients receiving digitalis glycosides may precipitate digitalis toxicity. Care should also be exercised in patients receiving potassium depleting steroids.

Frequent serum electrolyte, CO₂, and BUN determinations should be performed during the first few months of therapy and periodically thereafter, and abnormalities corrected or the drug temporarily withdrawn.

In patients with hepatic cirrhosis and ascites, initiation of therapy with Lasix (furosemide) is best carried out in the hospital. Sudden alterations of fluid and electrolyte balance in patients with cirrhosis may precipitate hepatic coma; therefore, strict observation is necessary during the period of diuresis. Supplemental potassium chloride and, if required, an aldosterone antagonist are helpful in preventing hypokalemia and metabolic alkalosis.

Patients should be observed regularly for the possible occurrence of blood dyscrasias, liver damage, or other idiosyncratic reactions.

In those instances where potassium supplementation is required, an oral liquid preparation should be used rather than enteric-coated potassium salts.

There have been several reports, published and unpublished, concerning nonspecific small-bowel lesions consisting of stenosis, with or without ulceration, associated with the administration of enteric-coated thiazides with potassium salts. These lesions may occur with enteric-coated potassium tablets alone or when they are used with nonenteric-coated thiazides, or certain other oral diuretics.

These small-bowel lesions have caused obstruction, hemorrhage, and perforation. Surgery was frequently required, and deaths have occurred.

Available information tends to implicate enteric-coated potassium salts, although lesions of this type also occur spontaneously. Therefore, coated potassium-containing formulations should be administered only when indicated and should be discontinued immediately if abdominal pain, distention, nausea, vomiting, or gastrointestinal bleeding occurs.

Patients with known sulfonamide sensitivity may show allergic reactions to Lasix (furosemide).

Precautions—As with any potent diuretic, electrolyte depletion may occur during therapy with Lasix (furosemide), especially in patients receiving higher doses and a restricted salt intake. Electrolyte depletion may manifest itself by weakness, dizziness, lethargy, leg cramps, anorexia, vomiting, and/or mental confusion.

Asymptomatic hyperuricemia can occur and gout may rarely be precipitated. Reversible elevations of BUN may be seen. These have been observed in association with dehydration, which should be avoided, particularly in patients with renal insufficiency.

When parenteral use of Lasix (furosemide) precedes its oral use, it should be kept in mind that cases of tinnitus and reversible hearing impairment have been reported. There have also been some reports of cases in which irreversible hearing impairment occurred. Usually, ototoxicity has been reported when Lasix (furosemide) was injected rapidly in patients with severe impairment of renal function at doses exceeding several times the usual recommended dose and in whom other drugs known to be ototoxic were often given. If the physician elects to use high dose parenteral therapy in patients with severely impaired renal function, controlled intravenous infusion is advisable (for adults, it has been reported that an infusion rate not exceeding 4 mg Lasix [furosemide] per minute has been used).

Increases in blood glucose, and alterations in glucose tolerance tests with abnormalities of the fasting and two-hour postprandial sugar have been observed, and rare cases of precipitation of diabetes mellitus have been reported.

Lasix (furosemide) may lower serum calcium levels, and rare cases of tetany have been reported.

Patients receiving high doses of salicylates, in conjunction with Lasix (furosemide) may experience salicylate toxicity at lower doses because of competitive renal excretory sites.

Diuretics such as furosemide may enhance the nephrotoxicity of cephaloridine. Therefore, Lasix (furosemide) and cephaloridine should not be administered simultaneously.

Sulfonamide diuretics have been reported to decrease arterial responsiveness to pressor amines and to enhance the effect of tubocurarine. Great caution should be exercised in administering curare or its deriva-

tives to patients undergoing therapy with Lasix (furosemide), and it is advisable to discontinue Lasix (furosemide) for one week prior to elective surgery.

Adverse Reactions—Various forms of dermatitis, including urticaria and rare forms of exfoliative dermatitis, erythema multiforme, pruritus, parosmia, blurring of vision, postural hypotension, nausea, vomiting, diarrhea.

Anemia, leukopenia, aplastic anemia, and thrombocytopenia (v. purpura). Rare cases of agranulocytosis which responded to treatment.

In addition, the following rare adverse reactions have been reported however, relationship to the drug has not been established with certain sweet taste, oral and gastric burning, paradoxical swelling, headache, jaundice, thrombophlebitis and emboli and acute pancreatitis.

Lasix (furosemide)-induced diuresis may be accompanied by weakness, fatigue, lightheadedness or dizziness, muscle cramps, thirst, increased perspiration, urinary bladder spasm, and symptoms of urinal frequency.

Dosage and Administration

ADULTS

The usual adult dose of Lasix (furosemide) is 20 to 80 mg given as a single dose.

If the diuretic response with a single dose of 20 to 80 mg is not satisfactory, the following schedule should be used: Increase this dose by increments of 20 or 40 mg not sooner than 6 to 8 hours after the previous dose until the desired diuretic effect has been obtained. This individual determined single dose should then be given once or twice daily. The dose of Lasix (furosemide) may be carefully titrated up to 600 mg per day for those patients with severe clinical edematous states.

With doses exceeding 80 mg/day and given for prolonged periods careful clinical and laboratory observations are particularly advisable.

Hypertension—The usual dose of Lasix (furosemide) is 40 mg twice daily both for initiation of therapy and for maintenance. Careful observations for changes in blood pressure must be made when this compound is used with other antihypertensive drugs, especially during initial therapy. The dosage of other agents must be reduced by at least 50 percent soon as Lasix (furosemide) is added to the regimen to prevent excess drop in blood pressure. As the blood pressure falls under the potential effect of Lasix (furosemide), a further reduction in dosage, or even discontinuation, of other antihypertensive drugs may be necessary. It is further recommended, if 40 mg twice daily does not lead to a clinically satisfactory response, to add other hypotensive agents, e.g., reserpine, rather than to increase the dose of Lasix (furosemide).

INFANTS AND CHILDREN

Pediatric Administration: The usual initial dose of oral Lasix in infants and children is 2 mg/kg body weight, given as a single dose. If the diuretic response is not satisfactory after the initial dose, dosage may be increased by 1 or 2 mg/kg not sooner than 6 to 8 hours after the previous dose. Doses greater than 6 mg/kg body weight are not recommended.

For maintenance therapy in infants and children, the dose should be adjusted to the minimum effective level.

How Supplied—Lasix Tablets 40 mg (furosemide) supplied as white, round, monogrammed, scored tablets.

Lasix Tablets 20 mg (furosemide) supplied as white, oval, monogrammed tablets.

Note: Dispense in dark containers. Exposure to light may cause slight discoloration which, however, does not alter potency.

Additional Information

Toxicology

The acute toxicity of Lasix (furosemide) has been determined in mice, rats, and dogs. In all three animal species, the oral LD₅₀ of Lasix (furosemide) exceeded 1000 mg/kg of body weight, while the intravenous LD₅₀ ranged from 300 to 680 mg/kg. Intragastric injection of the drug in newborn rats resulted in an LD₅₀ of 380 mg/kg.

The acute toxicity of high doses of Lasix (furosemide) was characterized by convulsions, paralysis, and collapse. Surviving animals often came dehydrated and depleted of electrolytes due to the diuresis induced by Lasix (furosemide). In the newborn rats, intragastric injection of drug caused hyperactivity and anorexia.

Chronic toxicity studies with Lasix (furosemide) were done in mice and dogs. In a one-year study in rats, renal tubular degeneration occurred with all doses higher than 50 mg/kg (4 times the maximal recommended human dose of 600 mg per day). A six-month study in dogs revealed atrophy and scarring of the renal parenchyma at all doses above 100 mg/kg (83 percent of the maximal recommended human dose of 600 mg per day).

Reproductive Studies

The effects of Lasix (furosemide) on embryonic and fetal development and on pregnant dams were studied in mice, rats, and rabbits.

Lasix (furosemide) caused unexplained maternal deaths and abortions in the rabbit when 50 mg/kg (4 times the maximal recommended human dose of 600 mg per day) was administered between days 12 to 14 of gestation. In a previous study the lowest dose of only 25 mg/kg (2 times the maximal recommended human dose of 600 mg per day) caused fetal deaths and abortions. In a third study, none of the pregnant rabbits survived a dose of 100 mg/kg. Data from the above studies indicate a lethality which can precede maternal deaths.

The results of the mouse study and one of the three rabbit studies also showed an increased incidence of hydronephrosis (distention of renal pelvis and, in some cases, of the ureters) in fetuses derived from treated dams as compared to the incidence in fetuses from the control group.



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Your Health, Your Country's Health and the National Health Service

Special Article

ALBERT EINSTEIN characterized the 20th century as a period of unlimited techniques and a confusion of objectives.

During this election year when the candidates are talking about, or at least mentioning, a national health service, we would do well to examine our goals as far as the national health, our personal health and a national health service are concerned.

There seems to be a widespread belief that the health of the nation and the personal health of each citizen are closely tied to the availability of medical care. Before launching into a multi-billion dollar health plan, we should try to determine whether this relationship is as close as we believe it to be and whether the improvement in the nation's health will be great enough to warrant the expense.

A strange trick of semantics has helped to confuse the issue. This trick is calling national health insurance or a national health service or a health maintenance organization something that they are not. This insurance or service or organization is not for purposes of health, but for the care of the sick.

A moment's reflection will indicate that maintenance of health and treatment of disease are seldom closely related. Several examples will clarify this point. The treatment of lung cancer is surgery or radiation, neither of which offers very much in the way of success. This cannot be called health maintenance nor return to health. Once started, the disease is practically incurable. Neither methods of early detection nor periodic x-ray examination change this gloomy outlook. If, however, we are to maintain health so far as lung cancer is concerned, we must eliminate smoking. Here is a preventable disease that has very little hope of cure once it is started. This is a clear instance in which health care and treatment of disease are unrelated.

Another instance is the tragic and shameful

slaughter on the highways. Approximately 100,000 people were killed and 300,000 were seriously injured in highway accidents during 1975. As bad as this is, it represents a reduction of about 30% which was brought about by reducing the speed limit to 55 miles per hour. This 30% reduction in mortality is more than could be accomplished by placing a completely equipped and staffed emergency hospital at every major highway intersection. Clearly, the route to health from automobile accidents lies not in the care of the injured, but in the prevention of the accident.

We are sure of the cause of cancer of the penis and most skin cancers. These can easily be prevented, but they are difficult to cure. Cancer of the penis is prevented by circumcision during infancy; skin cancer is prevented by protection from actinic rays. Neither condition would be prevented by a national health service unless circumcision were made compulsory and sun bathing illegal.

The Mormons of Utah who do not smoke, drink alcohol or coffee or tea and who believe in a simple diet containing meat in moderation have a mortality rate from cancer of about one half to two thirds that of their neighbors. This point should be clear. There is such a thing as health care that will improve our personal and the nation's health. It also should be clear that the treatment of disease, which has been caused by neglect of health principles, is an expensive and unrewarding undertaking. This, however, is the answer to our health problem that we are being offered by our politicians and legislators.

There is, at present, an epidemic of gonorrhea in this country. Even though an effective, simple treatment is available and even though the treatment may be obtained without cost in most communities, the epidemic continues. This is but another indication that cure of the illness is not the best or easiest pathway to health. Twenty-five years ago, gonorrhea was almost eradicated by education and a planned program of prevention. When this program was discontinued because a simple treat-

* Dr. Cope served as President of the Missouri State Medical Association in 1974-1975.

ment was found, the disease became rampant.

Tuberculosis and typhoid fever were under adequate control before treatment was discovered. Even now, no amount of treatment would prevent an epidemic of these diseases should we relax the sanitary measures that keep them in check. Other areas of disease prevention are rapidly expanding. Our ecologists are insisting that we clean up the environment; the geneticists are pointing the way to avoid inherited disease. Industrial medicine is the science of prevention and has been successful.

Fire kills 12,000 persons a year and injures 300,000. In theory, at least, both can be prevented. Death and injury on the highways could be stopped with a determined effort.

These are but a few of the areas in which preventive health care could be effective. Many others are more apparent. Obesity with its high mortality rate from heart and vascular disease is preventable by training. All drug-associated health problems can be controlled. Alcoholism, even though called a disease when treated, is totally preventable by avoiding that first drink. Malnutrition among the growing children and the aged can be eliminated at a trifling cost compared to the cost of treatment.

It is often pointed out that our infant mortality is high and that this indicates an unhealthy population that could be improved with better prenatal care. Let us look at this presumption. A woman who lives in the ghetto becomes pregnant. Her husband cannot find work and deserts her. She lives in a roach-infested, crowded tenement. She breathes smog, she has inadequate clothing and she may drink and bathe in dilute sewage if water is available at all. The hopelessness of her situation may cause mental depression. The answer to this problem is not an obstetrical clinic and mental health clinic located in the ghetto. Her situation is far beyond the ability of a national health service to correct.

Most illnesses have a proximal as well as a remote cause. The common cold is caused by a virus, the proximal cause. But most colds start with an episode of fatigue or chilling which reduces body defenses to a susceptible level. The proximal cause of myocardial infarction is occlusion of the coronary arteries. The remote cause is improper diet and lack of exercise. The list goes on almost indefinitely.

If our goal is improvement of the nation's health, then we must attack the remote as well as the proximal cause of the disease. We have the knowledge and the technology to accomplish much in this field. Whether or not we have the intestinal fortitude to change behavior patterns and life styles remains to be seen.

There is no question but that a National Medical Care Program would be a great humanitarian effort. There is a question in my mind about whether we can afford it, and we certainly cannot afford it without cutting out other and, possibly, more important programs.

No nation that has ever started such a service has been able to control it. Former Prime Minister Heath stated, "The desire for medical care is without limits; when provided at no cost, the demand is insatiable."

Writing in *Science*, Abelson states that, "In spite of a considerable evidence that the health care system is not cost effective, the prospect is for continued growth." In 1950, \$12 billion were spent on health care. In 1975, \$118.5 billion were spent on health care. In spite of this expense, life expectancy, which had been rising steadily until 1954, has remained at a plateau since that time.

With a national health service, we would all be considerably poorer but no healthier. If improvement in our nation's health is our goal, then we should spend our time and money on behavior modification, ecology and upgrading our living standards instead of a multi-billion dollar treatment program that will be usurped by the chronically ill and the worried well.

Because we have not already committed our national wealth to a program of treatment, we have retained the opportunity to use our resources in the prevention rather than the treatment of disease. At the time socialized medicine was adopted in other countries, the concepts of the prevention of disease through changing life styles had not been developed. We should not follow such a route.

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An Assessment of Current Mammography and Thermography Utilization in Missouri Hospitals

RECENT INTEREST in the problem of earlier breast cancer detection has resulted in new health program initiatives at many levels. The primary thrust came through joint National Cancer Institute/American Cancer Society contracts to develop 27 Breast Cancer Detection Demonstration Projects. Missouri was fortunate to compete successfully for such an award, and acceptance of the Missouri program by both the medical and lay communities has been excellent. The national projects have screened 273,000 asymptomatic women in the 35- to 74-year-age range in a period of two years. In the same period, participants have been screened from 105 of Missouri's 115 counties.

Since the outcome of these demonstration programs will not be known until the mid 1980s, interim reports are being developed continuously. One specific item of interest in the interim reports is the accuracy of mammography as a detection technique. A recent article by Strax¹ indicates that of the total cancers detected in the New York program, one in three was detected by mammography

alone and two in five by clinical examination alone. The experience of Missouri's Breast Cancer Detection Demonstration Project at Columbia puts the figure at 70% for mammography alone, 24% for clinical examination alone and 68% of the cancer cases had a positive thermogram. Mass screening for detection of earlier breast cancer by palpation and mammography is the only method that has produced a notable reduction in mortality from this disease.¹ The role that thermography will ultimately assume in early breast cancer detection remains unclear. Quality control is variable and the degree of expertise in thermogram interpretation varies widely. Instrumentation for thermography is in a state of flux and objective criteria for evaluation of breast thermograms have been developed only recently.²

The aforementioned evidence, as well as significant public interest, led the Cancer Control Program to develop a report, a preliminary assessment on the present capabilities for a large-scale screening program in Missouri. This report was prepared in October, 1975 and distributed to members of the Governor's Ad Hoc Cancer Control Advisory Committee. It will be augmented by survey results and revised to reflect the current status of international, national and local breast cancer detection initiatives.

Two surveys have been made to supplement the preliminary assessment report. One survey was directed toward assessment of the use of mammography or thermography or both in Missouri hospitals; the other assessed the pattern of State Health Department participation in and support of breast cancer detection programs.

Responses were obtained from 119 of the 167 Missouri hospitals to which surveys were sent. The survey located 61 hospitals offering mammography and five hospitals offering thermography. During March, 1976, the 61 hospitals did 1,901 mammograms which indicate a projected annual rate of more than 22,000 being done. These units are located throughout the state. Fig. 1 shows the distribution in Missouri; Fig. 2, the distribution by

The National Breast Cancer Detection Demonstration Projects are funded jointly by the National Cancer Institute and American Cancer Society as Cancer Control initiatives. In a two-year period, 273,000 asymptomatic women in the 35- to 74-age range have been screened at 27 locations in the United States. Significant public interest provided the impetus for the Missouri Cancer Control Program to undertake an assessment of the tools of breast cancer detection. Survey results are intended to assist those interested in methods for breast cancer detection in Missouri.

Mr. Thomas is Administrative Director, Missouri Division of Health Cancer Control Program, and Dr. Rodes is Director, Missouri Breast Cancer Detection Demonstration Project, Cancer Research Center.

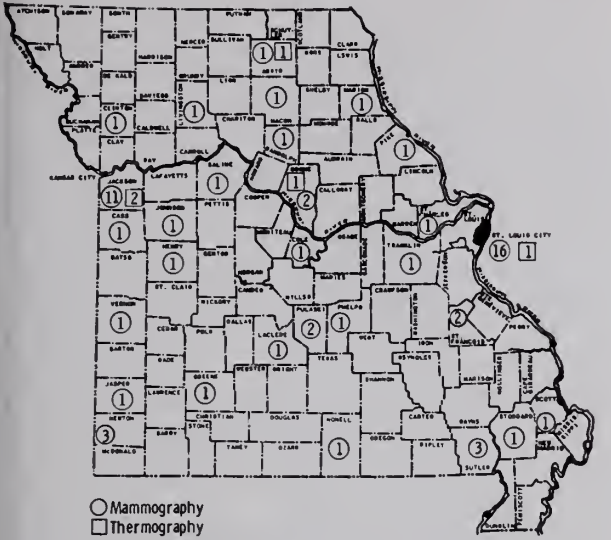


Fig. 1 Distribution of Mammography and Thermography Units in Missouri Hospitals by County.

Missouri Regional Planning Commission; and Fig. 3, the distribution by Health Service Areas developing by virtue of the National Health Planning and Development Act of 1974. In addition, 11 new mammography units and three thermography units will be purchased within the year by responding hospitals. Table 1 reflects the range on volume of mammography done per month identified within Health Service Areas.

The second survey, which was directed to State Departments of Health, is summarized in Table 2 and indicates a primary pattern of support for programs of breast self-examination.

These survey results reflect the wide acceptance of mammography by the medical community and are evidence of the growth in utilization of mammography at the community level. In view of these findings, successful methods of breast cancer detection have "left" the mass screening program, which provided the necessary initial impetus, and have developed into a desirable level of community involvement. Several responses indicated that such services are made available by radiological groups within the community; these are not identified on the maps. Private clinics, practitioners or groups were not surveyed and ± 50 hospitals did not respond. Thus, the prospects of even greater distribution and utilization certainly exist. A follow-up questionnaire has gone to hospitals utilizing mammography or thermography or both to determine how long these devices have been utilized at the current volume. Only 40 responses have been returned, but 50% indicate growth trends which

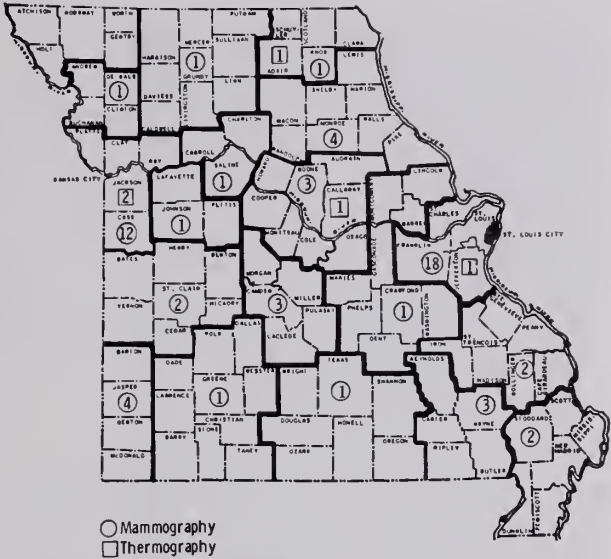


Fig. 2 Distribution of Mammography and Thermography Units in Missouri Hospitals by Regional Planning Commission.

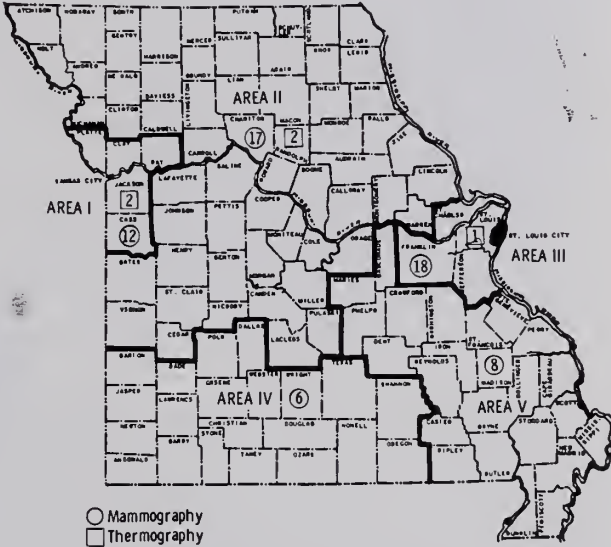


Fig. 3 Distribution of Mammography and Thermography Units in Missouri Hospitals by Health Service Area.

might correlate with the development of the Breast Cancer Detection Demonstration Projects. Conclusions on recent growth trends cannot be drawn until a more complete analysis is available. If the 50% trend continues, however, the likelihood that this growth correlates with the national projects is probable and prospects for expanded utilization are quite good.

These surveys did not address themselves to the matter of quality control nor were they intended to constitute a preferred position. The intent was purely informational and directed at assessment of the volume and distribution of mammography or thermography or both.

TABLE 1

Range on Volume	Health Service Area					Total
	I	II	III	IV	V	
0-19	6	11	3	4	6	30*
20-39	4	4	2	1	2	13
40-59	0	2	6	0	0	8
60-79	0	0	4	0	0	4
80-99	2	0	1	1	0	4
100 +	0	0	2	0	0	2
Total	12	17	18	6	8	61

* Includes eight hospitals that did not give the number of mammograms done last month.

TABLE 2

STATE DEPARTMENT OF HEALTH SURVEY

45 Responses (90% Return)

- 1 Breast cancer detection program, other than breast self-examination programs, is supported by State Departments of Health
- 14 Programs of breast self-examination are supported in part or fully by State Departments of Health
- 3 Departments of Health are planning to develop breast cancer detection programs
- 20 Respondents have National Cancer Institute/American Cancer Society Breast Cancer Detection Demonstration Projects operational in their states
- 10 Indicated participation in the Breast Cancer Detection Demonstration Project exceeded expectations
- 9 Indicated planning is taking place to continue support of the Breast Cancer Detection Demonstration Projects after termination of the National Cancer Institute/American Cancer Society funding

The question of quality control is currently being addressed in other parts of the country; already in existence is the Mammography Quality Assurance Program. The Federal Drug Administration (FDA) has started this program on a pilot basis in Pennsylvania and the District of Columbia. It, hopefully, will lay the groundwork for a state-federal cooperative educational effort and insure that x-ray exposure is monitored to protect the patient.³

The Missouri survey results are not dissimilar from recent experiences in other states. The Massachusetts Department of Public Health conducted a similar survey in early 1975 to study the availability and utilization of mammography and xerography. Its survey located 67 mammographic, 29 xerographic and three thermographic units. In addition, 17 xerographic and two thermographic units were on order. In all, nearly 5,000 mammograms and xerograms are obtained each month in Massachusetts.⁴

Missouri finds itself in a unique position due to the overwhelming acceptance of the Breast Cancer Detection Demonstration Project which has continued with the concurrent steady growth in community utilization of detection methods. Because of the volume of women seen, convenient location and reservoir of experience to date, the Project is an indispensable resource and complements the private medical community effort further through teaching, experience and the acceptance of only asymptomatic screenees. The Project and community, together, with the invaluable assistance of public education programs in breast cancer detection from the Missouri Division, Inc., American Cancer Society, provide Missouri with excellent resources.

In order to maintain momentum and maximize the use of the Project as a teaching resource, it was desirable to develop an educational model which might be replicated at a later time in other sections of the state. In Missouri, facilities similar to those currently in operation in the Breast Cancer Detection Demonstration Project are not readily available to individuals for the purpose of teaching. Recognizing that the existence of the breast project offered a valuable teaching resource, the Cancer Control Program applied to the National Cancer Institute for a grant titled "Teaching Techniques of Breast Cancer Detection." On Sept. 1, 1975, the Missouri Breast Cancer Detection Demonstration Project was awarded this teaching grant from the Cancer Control Section of the National Cancer Institute. The purpose of the project is to introduce and to teach in depth the modalities currently used in earlier breast cancer detection. These include xeroradiography, thermography and physical examination. The course, which is a minimum of one week, is open to paramedical personnel in Missouri, including x-ray technologists, thermography technologists and nurses. Training for interested physicians will be organized on an individual basis. The course is designed to acquaint the medical community with the various techniques of breast cancer detection.

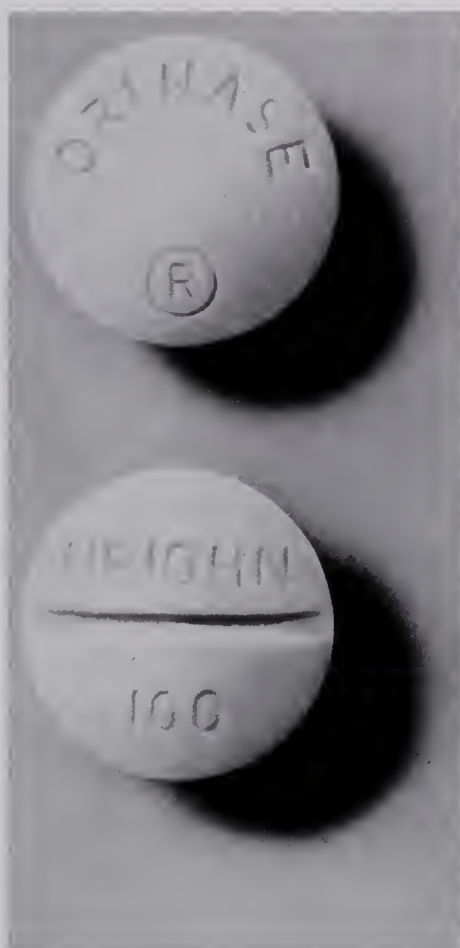
The National Breast Cancer Detection Demonstration Projects represent a major advance in cancer screening. The use of mammography, xerography, and thermography in private sectors of medicine has been consistently on the increase. The distribution of services in Missouri is desirable and should be complemented by resources of the existing Breast Cancer Detection Demonstration

(Continued on page 512)

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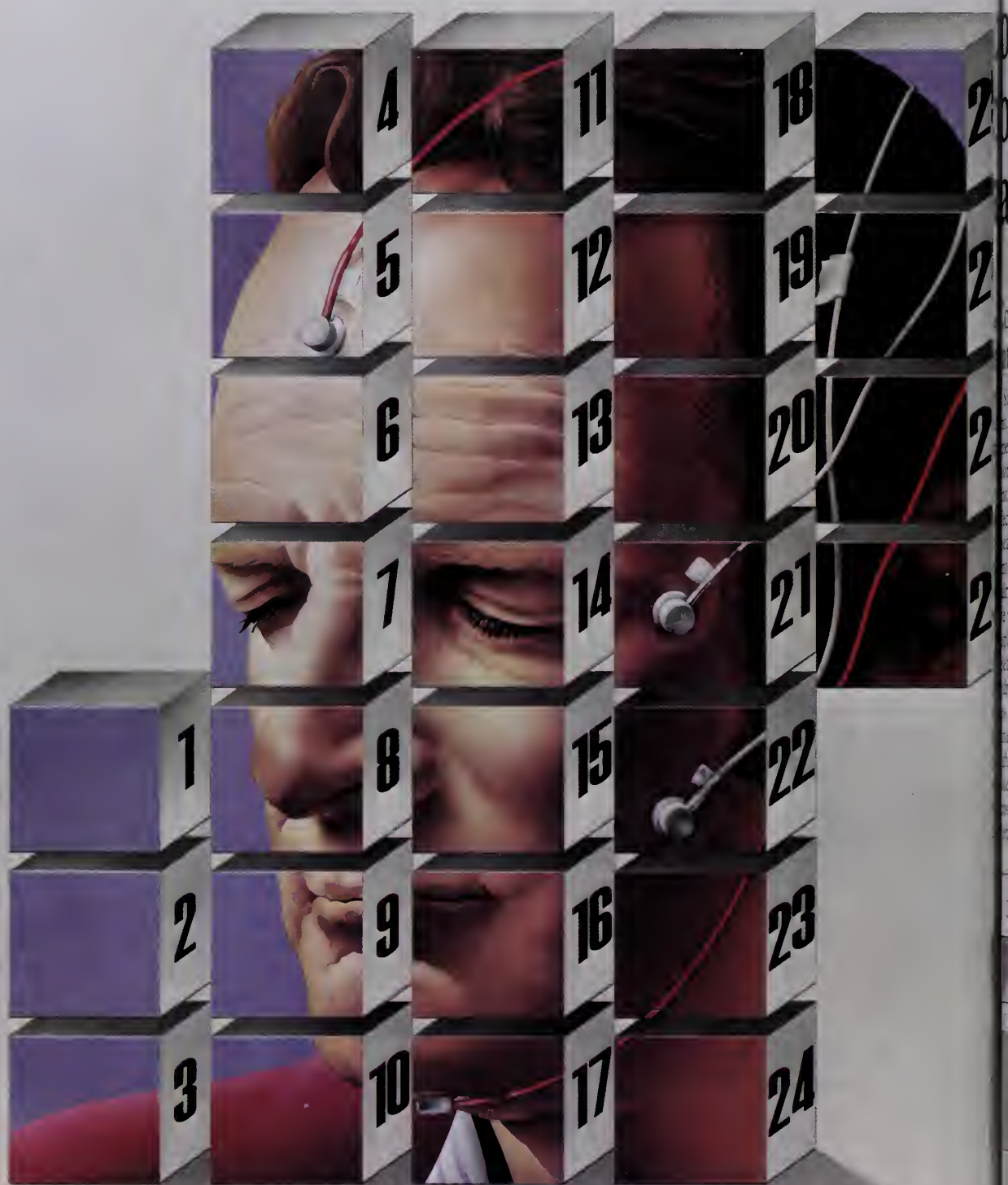
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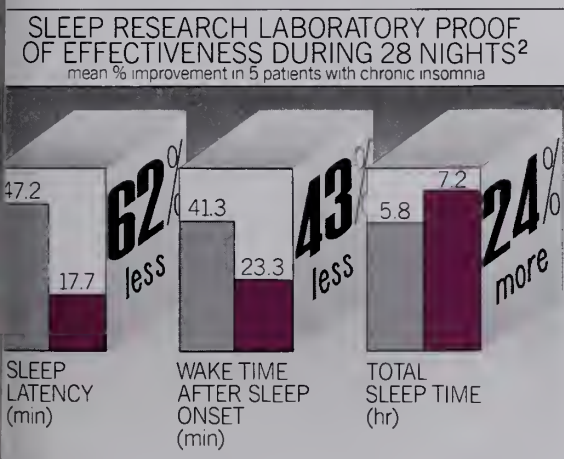


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Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. Caution against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving). Use in women who are or may become pregnant only when potential benefits have been weighed against possible hazards. Not recommended for use in persons under 15 years of age. Though physical and psychological dependence have not been reported on recommended doses, use caution in administering to addiction-prone individuals or those who might increase dosage.

Precautions: In elderly and debilitated, initial dosage should be limited to 15 mg to preclude oversedation, dizziness and/or ataxia. If combined with other drugs having hypnotic or CNS-depressant effects, consider potential additive effects. Employ usual precautions in patients who are severely depressed, or with latent depression or suicidal tendencies. Periodic blood counts and liver and kidney function tests are advised during repeated therapy. Observe usual precautions in presence of impaired renal or hepatic function.

Adverse Reactions: Dizziness, drowsiness, lightheadedness, staggering, ataxia and falling have occurred, particularly in elderly or debilitated patients. Severe sedation, lethargy, disorientation and coma, probably indicative of drug intolerance or overdosage, have been reported. Also reported were headache, heartburn, upset stomach, nausea, vomiting, diarrhea, constipation, GI pain, nervousness, talkativeness, apprehension, irritability, weakness, palpitations, chest pains, body and joint pains and GU complaints. There have also been rare occurrences of leukopenia, granulocytopenia, sweating, flushes, difficulty in focusing, blurred vision, burning eyes, faintness, hypotension, shortness of breath, pruritus, skin rash, dry mouth, bitter taste, excessive salivation, anorexia, euphoria, depression, slurred

speech, confusion, restlessness, hallucinations, and elevated SGOT, SGPT, total and direct bilirubins and alkaline phosphatase. Paradoxical reactions, e.g., excitement, stimulation and hyperactivity, have also been reported in rare instances.

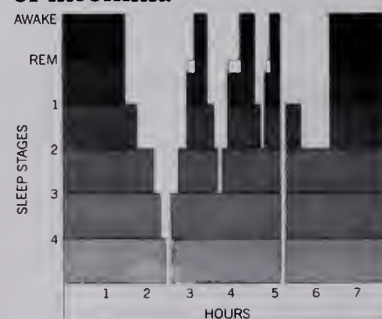
Dosage: Individualize for maximum benefit. *Adults:* 30 mg usual dosage; 15 mg may suffice in some patients. *Elderly or debilitated patients:* 15 mg initially until response is determined.

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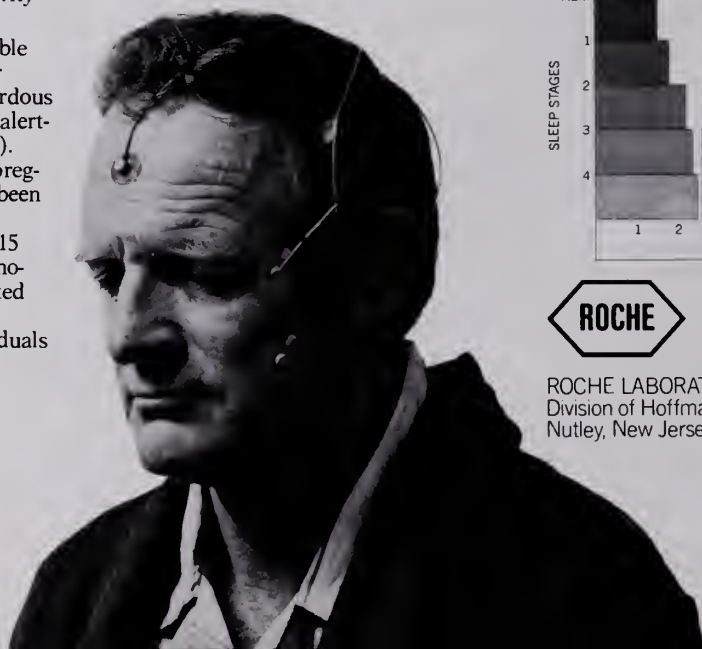
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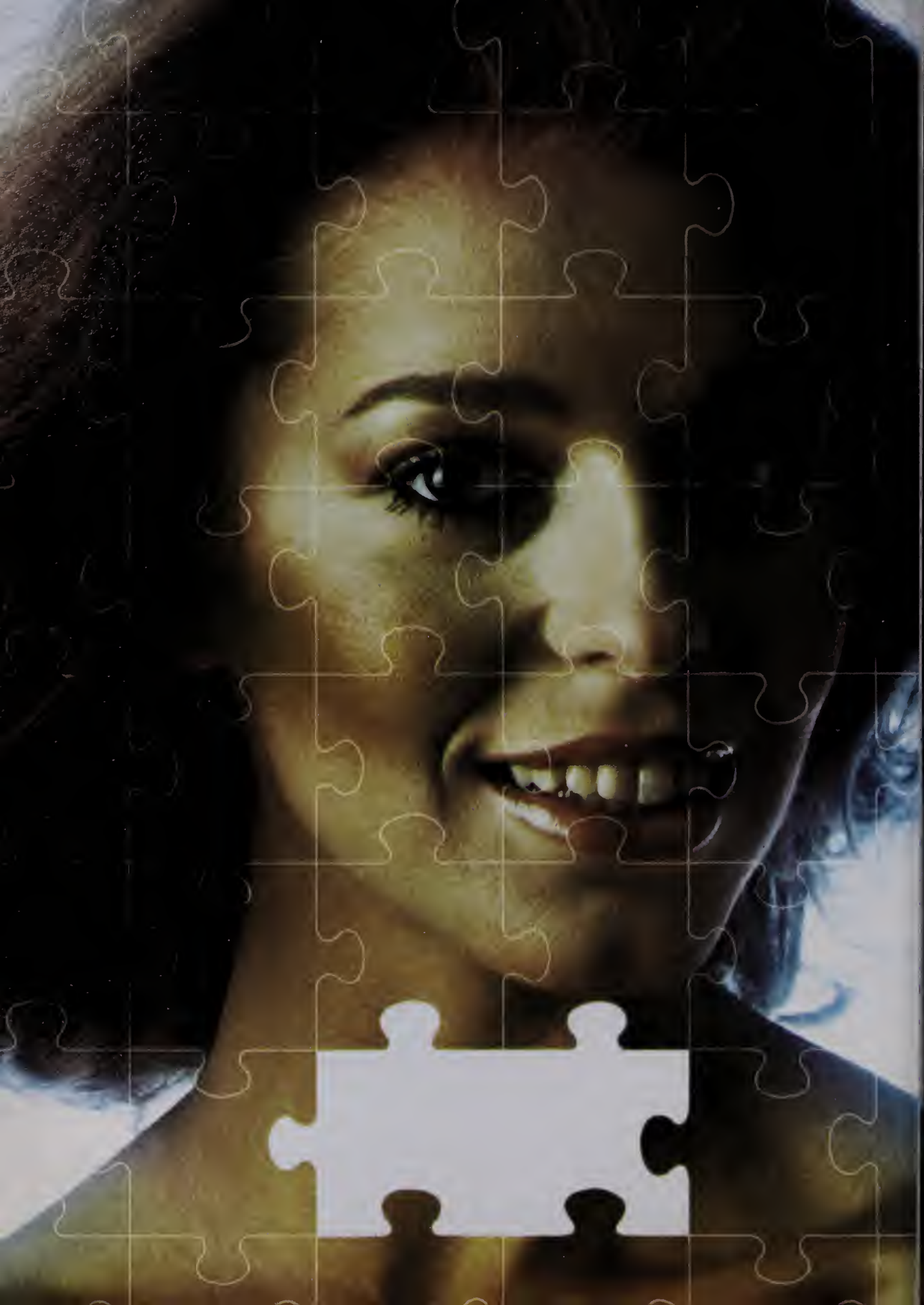
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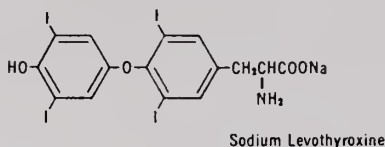
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Precautions: Overdosage with any thyroid drug may produce the signs and symptoms of thyrotoxicosis, but resistance to such factitious thyrotoxicosis is the general rule. With SYNTHROID (sodium levothyroxine) **Tablets**, the relatively slow onset of action minimizes the risk of overdose but close observation in the weeks following institution of a dosage regimen is advised. Treatment of thyroid hyperactivity induced by oral medication is confined to interruption of therapy for a week, followed by reinstitution of daily therapy at an appropriately reduced dosage.

Adverse reactions: Adverse reactions are due to overdose and are those of induced hyperthyroidism.

Dosage and administration: For most adults, a final dosage of 100 mcg (0.1 mg) to 200 mcg (0.2 mg) of SYNTHROID (sodium levothyroxine) **Tablets** daily will restore normal thyroid function and only occasionally will patients require larger doses. Failure to respond adequately to a daily oral intake of 400 mcg (0.4 mg) or more is rare and should prompt reconsideration of the diagnosis of hypothyroidism, special investigation of the patient in terms of malabsorption of L-thyroxine from the gastrointestinal

tract or poor adherence to therapy.

The concomitant appearance of other diseases, especially cardiovascular diseases, usually dictates a replacement regimen with initial doses smaller than 100 mcg/day (0.1 mg).

In otherwise healthy adults with relatively recent onset of hypothyroidism, full replacement dose of 150 mcg (0.15 mg) or 200 mcg (0.2 mg) has been instituted immediately without untoward effect and with good therapeutic response. General experience, however, favors a more cautious approach in view of the possible presence of subclinical disorders of the cardiovascular system or endocrinopathies.

The age and general physical condition of the patient as well as the severity and duration of hypothyroid symptoms determine the starting dosage and the rate of incremental dosage increase leading to a final maintenance dosage. In the elderly patient with long standing disease, evidence of myxedematous infiltration and symptomatic, functional or electrocardiographic evidence of cardiovascular dysfunction, the starting dose may be as little as 25 mcg (0.025 mg) per day. Further incremental increases of 25 mcg (0.025 mg) per day may be instituted at three to four week intervals depending on patient response. Conversely, otherwise healthy adults may be started at higher daily dosage and raised to the full replacement dosage in two to three weeks. Clearly it is the physician's judgment of the severity of the disease and close observation of patient response which determines the rate of dosage titration.

Laboratory tests to monitor thyroid replacement therapy are of limited value. Although measurement of normal blood levels of thyroxine in patients on replacement regimens frequently coincides with the clinical impression of normal thyroid status, higher than normal levels on oral replacement of levothyroxine occasionally occur and should not be considered evidence of overdosage per se.

In all cases, clinical impression of the well-being of the patient takes precedence over laboratory determination in determining the appropriate individual dosage.

In infants and children, there is a great urgency to achieve full thyroid replacement because of the critical importance of thyroid hormone in sustaining growth and maturation. Despite the smaller body size, the dosage needed to sustain a full rate of growth, development and general thriving is higher in the child than in the adult, as much as 300 mcg (0.3 mg) to 400 mcg (0.4 mg) per day.

In myxedema coma or stupor, without concomitant severe heart disease, 200 to 500 mcg of SYNTHROID **Injection** may be administered intravenously as a solution containing 100 mcg/ml. Although the patient may show evidence of increased responsiveness within six to eight hours, full therapeutic effect may not be evident until the following day. An additional 100 to 300 mcg or more may be given on the second day if evidence of significant and progressive improvement has not occurred. Like the oral dosage form, SYNTHROID **Injection** produces a predictable increase in the circulating level of hormone with a long half-time. This usually precludes the need for multiple injections but continued daily administration of lesser amounts intravenously should be maintained until the patient is fully capable of accepting a daily oral dose.

In the presence of concomitant heart disease, the sudden administration of such large doses of L-thyroxine intravenously is clearly not without its cardiovascular risks. Under such circumstances, intravenous therapy should not be undertaken without weighing the alternative risks of the myxedema coma and the cardiovascular disease. Clinical judgment in this situation may dictate smaller intravenous doses of levothyroxine.

SYNTHROID **Injection** by intravenous or intramuscular routes can be substituted for the oral dosage form when ingestion of SYNTHROID **Tablets** is precluded for long periods of time.

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Directions for reconstitution: Reconstitute the lyophilized sodium levothyroxine by aseptically adding 5 ml of the Sodium Chloride Injection, U.S.P. to the vial. Shake vial to insure complete mixing. Use immediately after reconstitution. Discard any unused portion.

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- Oct. 6 Recent Advances in Cardiology
Dec. 1 Current Concepts of Immune Disorders
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4949 Rockhill Rd., Kansas City 64110
(816) 276-8095
Contact: Carol G. Hamilton, Coordinator

- Nov. 10-12 Clinical Advances in Pediatrics

St. Louis University Medical Center

Continuing Education
1402 S. Grand Blvd., St. Louis 63104
(314) 664-9800
Contact: John A. Grellner, Director

* * *

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1221 S. Grand Blvd.
St. Louis 63104
(314) 771-7600-Sta. 3940
Contact: Kenneth D. Michael, M.D.

- Oct. 5 Eating Disorders: Their Genesis and Psycho-Physiology
(Cosponsored by the St. Louis Psychoanalytic Institute)
(Six Tuesday sessions—Oct. 5, Oct. 12, Oct. 19, Oct. 26, Nov. 9, Nov. 16)
Oct. 14 Human Psychology as Revealed in Great Literature (Six monthly sessions—Oct. 14, Nov. 11, Dec. 9, Jan. 13, Feb. 10, Mar. 10)

University of Missouri-Columbia School of Medicine

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M-175 Medical Center, Columbia 65201
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- Dec. 9-10 Annual Clinical Meeting

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(816) 471-3876
Contact: Alta Bingham

- Sept. 24-25 Long Weekend—Dermatology/Gynecology
Oct. 21-23 Annual Fall Clinical Conference, K.C. Southwest Clinical Society
Nov. 19-20 Long Weekend—Neurology/Pharmacology
Dec. 9-11 The Heart-1976—Current Topics in Cardiology
Jan. 23-28 Mid-Winter Traveling Medical Education Course (Steamboat Springs, Colo.)
Feb. 18-19 The Long Weekend—Fluid and Electrolyte Disorders I & II

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Oct. 11-14 Internal Medicine
Oct. 26-27 Medicine and Religion
Dec. 6-7 Gynecology and Obstetrics
Dec. 8-10 Medical Technology
Feb. 14-15 Neurological Diseases
Mar. 7-9 Pediatrics
(Continued on next page)

Continuing Education Coming Events

(Continued from page 511)

Washington University School of Medicine

660 S. Euclid Ave., St. Louis 63110

(314) 454-2515

Contact: Loretta Giacometto

- Sept. 23-24 Clinical Allergy for Practicing Physicians
- Nov. 12-14 Third Annual Symposium: Anesthesia and the Geriatric Patient
- Dec. 5 Current Topics in Diabetes
- Mar. 4-5 Clinical Endocrinology
- Mar. 11-12 A Postgraduate Course in Otolaryngology

The Edward Mallinckrodt Institute of Radiology

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(314) 454-2291

Contact: Ronald G. Evens, M.D.

- Oct. 11 Comparison of Radiographic, Radioisotopic and Bioassay Procedures in Evaluation Hypertension: A Follow-up of 700 Patients
- Nov. 8 Radiologic Investigation of Malignant Disease in Children
- Dec. 13 Clinical Utility of Ultrasound
- Jan. 10 Oral Cholecystography
(1977)
- Feb. 14 Esophageal Ulcer Disease
(1977)

Assessment of Current Mammography

(Continued from page 510)

Project and educational programs of the Missouri Division, Inc., American Cancer Society. These survey results will help the Cancer Control Program complement and support the strengths now existing in Missouri.

Acknowledgment: The authors express appreciation to all hospital administrators who responded to these surveys. Their cooperation resulted in a 71% return on the questionnaire and is to be commended. These surveys were made possible by funds awarded by the Missouri Division of Health.

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In Memoriam

Edward J. Weidmaier, M.D., 2929 Baltimore, Kansas City 64108, a graduate of the University of Texas, 1965; member Jackson County Medical Society; age 40; died May 17, 1976.

Elizabeth K. Gay, M.D., 5166 Cheltenham Rd., Florissant 63033, a graduate of Washington University, 1951; member St. Louis County Medical Society; age 57; died July 18, 1976.

Adolph H. Conrad, Jr., M.D., 911 S. Brentwood Blvd., Clayton 63105, a graduate of Washington University, 1938; member St. Louis Medical Society; age 62; died July 23, 1976.

Marie O. Mowrer, M.D., 5400 Arsenal, St. Louis 63139, a graduate of University of Illinois, 1951;

member St. Louis County Medical Society; age 50; died July 25, 1976.

Marvin Grossman, M.D., Schwaner Bldg., Fredericktown 63645, a graduate of St. Louis University, 1935; member Mineral Area Medical Society; age 67; died July 28, 1976.

Ralph Perry, M.D., 7140 Sni-A-Bar Rd., Kansas City 64129, a graduate of University of Arkansas, 1931; member Jackson County Medical Society; age 72; died August 10, 1976.

Robert E. Harland, M.D., 2500 Torrey Pines Rd., La Jolla, Calif. 92037, a graduate of the University of Tennessee, 1933; member Mineral Area County Medical Society; age 66; died July 29, 1976.

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Medical Grand Rounds

FROM THE UNIVERSITY OF MISSOURI-COLUMBIA MEDICAL CENTER

and the HARRY S TRUMAN MEMORIAL VETERANS ADMINISTRATION HOSPITAL

Heart Block

Dr. Willson: Heart block is a topic which touches virtually every area of medicine. Most commonly, heart block is an acquired disease of adults, but it can result from a fascinating variety of causes which are shown in Table 1. Of these causes, the most common appears to be the sclerodegenerative process recently described by Lev¹ and Lenegre.²

To illustrate a number of concepts about heart block, we will now discuss a recent case.

Dr. Silvos: An 80-year-old white man entered the hospital because of syncope. Seven years prior to admission, he had sustained an anterior myocardial infarction. He recovered and was well until four years prior to admission when he had his first episode of syncope, which lasted 2 to 3 minutes and was associated with clonic movement of all extremities. There was no aura, loss of sphincter control or postictal state. Thereafter, he had similar episodes approximately twice yearly. One year ago, he was admitted to our hospital for evaluation of these episodes. The electroencephalogram, brain scan, skull films and lumbar puncture were normal. The electrocardiogram revealed an old anteroseptal infarction, first degree atrio-ventricular (A-V) block, right bundle branch block and left anterior hemiblock.

He was treated with diphenylhydantoin and phenobarbital. On Sept. 1, 1975, the patient again fainted and again was admitted to the hospital for observation. Physical examination revealed an oriented, elderly man with an irregular pulse, flat neck veins, clear lung fields and a normal heart to auscul-

tation. Electrocardiographic monitoring revealed frequent premature ventricular contractions (PVCs). The electrocardiogram (ECG) (Fig. 1) was unchanged from that recorded a year previously except for the presence of PVCs and somewhat less impressive Q waves.

He was treated with quinidine on the presumption that episodic ventricular tachycardia caused his syncope. Three days later, he developed cardiac arrest, was resuscitated and was found to have complete heart block with a slow idioventricular

This paper is based on a Grand Rounds presentation of the Department of Medicine, University of Missouri School of Medicine on Oct. 9, 1975. Recent advances in understanding the important problem of heart block are reviewed with emphasis on application of new concepts to management of patients such as described in the case report.

Speakers:

L. Monty Willson, Jr., M.D., Assistant Professor of Medicine.

Gerald R. Silvos, M.D., Assistant Resident in Medicine.

Myron W. Mizell, M.D., Fellow in Cardiology.

Richard H. Martin, M.D., Professor of Medicine and Director, Division of Cardiology.

TABLE 1
ETIOLOGIC CLASSIFICATION OF HEART BLOCK

Acquired

- Sclerodegenerative disease
- Ischemic heart disease (post-infarction)
- Infectious disease
 - syphilis, myocarditis, endocarditis, Chagas' disease
- Infiltrative disease
 - sarcoidosis, amyloidosis, carcinoma
- Endocrine disorders
 - hyperthyroidism, hypothyroidism, Addison's Disease
- Connective tissue disease
 - rheumatoid arthritis, dermatomyositis
- Drugs and intoxications
 - digitalis, procaine amide, quinidine, hyperkalemia
- Traumatic
 - blunt trauma
 - postoperative (e.g., repair of septal defects, tetralogy; aortic valve replacement)

Congenital

- Isolated
- Associated with other congenital heart defects
 - ostium primum ASD
 - VSD

rhythm (Fig. 2). A cardiac pacemaker was subsequently implanted. He has had no further episodes of syncope.

ANATOMIC AND PATHOLOGIC BASIS OF HEART BLOCK

Dr. Mizell: The current working model of the cardiac conduction system is diagrammed in Fig. 3. The sinus node, where the cardiac impulse normally originates, is located subepicardially at the junction of the right side of the superior vena cava and the right atrium. From the sinus node, three conduction pathways (the internodal pathways) carry the

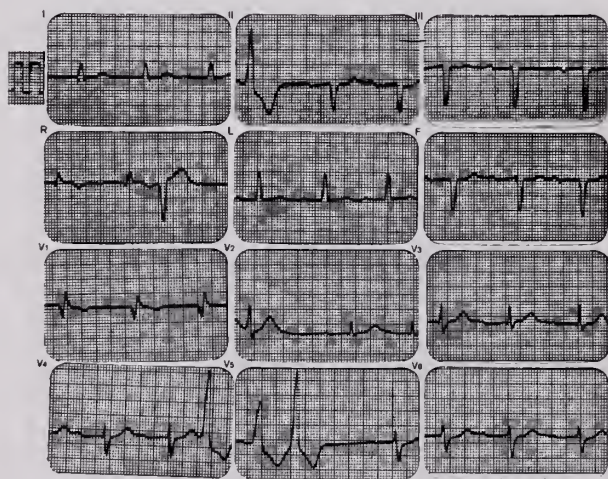


Fig. 1 Electrocardiogram recorded on Sept. 1, 1975, shows ventricular premature beats; 1° A-V block; left anterior hemiblock (QRS axis -75°); right bundle branch block; and Q wave in lead V_1 with very small Q waves in V_2 - V_4 compatible with old anteroseptal infarction.



Fig. 2 Lead II electrocardiogram recorded after resuscitation showing complete heart block with a slow idioventricular rhythm.

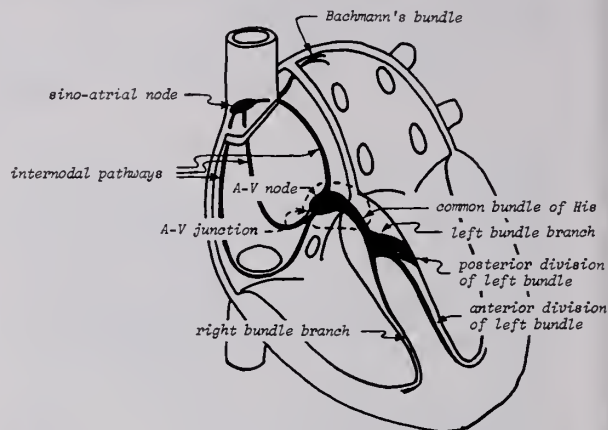


Fig. 3 Diagrammatic representation of the cardiac conduction system.

impulse to the A-V node. In addition, Bachmann's bundle branches from the anterior internodal bundle and courses to the left atrium. The A-V node lies under the right atrial septal endocardium anterior to the orifice of the coronary sinus and posterior to the base of the septal leaflet of the tricuspid valve. Internodal fibers enter the A-V node both superiorly and laterally.

From the A-V node, fibers coalesce as they traverse the central trigone and emerge as the common bundle of His inferiorly. The A-V node, the adjacent terminal fibers of the internodal pathways and the proximal portion of the His bundle are collectively known as the A-V junction. As the common bundle emerges from the A-V node, it courses posterior to the membranous ventricular septum before it divides into separate fascicles. The right bundle branch is slender and courses to the moderator band before arborizing into the right ventricular myocardium. The left bundle branch is a short, broad structure which divides into the delicate anterior division and the thicker posterior division, which course to the anterior and posterior papillary muscles, respectively.

Most abnormalities of conduction within this system have traditionally been attributed to infarction or fibrosis caused by atherosclerosis. Among the rather superficial reasons for this view are the facts that acquired heart block and atherosclerosis are both primarily seen in older patients and that conduction abnormalities are common during acute myocardial infarction. It is certainly true that an

occasional patient does acquire chronic heart block following inferior wall or ventricular septal infarction, and it is possible that progressive fibrosis following the anteroseptal infarction suffered three years before the onset of syncope may have caused the heart block in the case presented today. Acquired heart block usually is not associated with proven myocardial infarction, however, and most patients who survive heart block complicating myocardial infarction return to their preinfarct conduction pattern. At autopsy the conduction system is frequently found to be normal when the surrounding myocardium is involved by infarction.

Careful serial sectioning techniques employed independently by Lev and Lenegre have provided us with our current understanding of the pathology of acquired heart block.^{1, 2} In a high percentage of cases, fibrosis localized to the conduction system, without involvement of surrounding myocardium, is found. The process most commonly involves the bundle of His and proximal bundle branches. There usually is no significant atherosclerosis in the vessels supplying these areas. In many cases, the common bundle or bundle branches are completely replaced by this "sclerodegenerative" process. Lenegre has attributed this finding to a primary degeneration of the conduction system itself of unknown etiology.² Lev has inferred from his findings that the conduction system is passively and secondarily involved by wear and tear degeneration of the cardiac skeleton, i.e., the aortic and mitral valve rings and central trigone.¹ Whichever interpretation is correct, if either, the fact remains that with aging, the myocardial conduction system in some patients is subject to progressive degeneration resulting in partial or complete block of one or more fascicles and, in some patients, symptoms of heart block or death or both.

CLINICAL ASPECTS OF HEART BLOCK

Dr. Willson: Patients with complete heart block may present in a wide variety of ways, as matter of fact as the patient who walks into the office wondering why his pulse is slow, or as dramatic as sudden death.

Although two thirds of patients with complete heart block will eventually have a Stokes-Adams attack, syncope is a presenting complaint only about one quarter of the time. As illustrated by our case today, Stokes-Adams attacks have a pattern which helps to distinguish them from other forms of syncope which plague the elderly. Stokes-Adams syncope is *unpredictable* and usually results in immediate loss of consciousness. The duration is usual-

ly *brief*. Episodes generally last only 10 to 15 seconds and rarely persist more than two minutes. *Seizure activity during a Stokes-Adams attack is rare*. Attacks are terminated by a *dramatic return of consciousness*.

Congestive heart failure is the mode of presentation in another one quarter of cases. It is most important to distinguish if the congestive failure is caused by the heart block. Only if the congestive failure is due to the heart block will pacing improve cardiac function. A therapeutic trial of pacing may be necessary in order to tell if permanent pacing will be beneficial.

Symptoms resulting from inadequate cardiac output are the third major presentation (seen in another 25% of cases). Symptoms are frequently those of cerebral hypoperfusion: depression, irritability and mental deterioration. Since the usual patient with complete heart block is 70 years old, these symptoms may easily be attributed to "old age" and not be pursued further. It is often difficult to tell whether cerebral symptoms are caused by heart block, and a trial of pacing may be required in this case, also.

Miscellaneous presentations of heart block include claudication, chronic renal failure and, rarely, angina pectoris.

Patients with complete heart block experience an excess mortality of 38% to 56%, depending on age.³ Chronic drug therapy of complete heart block does not improve survival⁴ and is applicable only to patients who are not candidates for pacemaker therapy. Sublingual or orally administered isoproterenol, ephedrine and amphetamines may increase the rate of an idioventricular focus. Atropine may temporarily decrease A-V block or accelerate a junctional focus in cases of A-V nodal block. The use of thiazide diuretics to induce hypokalemia and increase the rate of the idioventricular focus is of historical interest only.

The use of electronic pacemakers has vastly improved the survival rate of patients with complete heart block and pacing is clearly the treatment of choice.⁵ The one-year mortality rate in untreated or medically treated patients is a staggering 50%; it is 10% in patients treated with pacemaker placement. The latter figure has declined in the last few years from 20%, presumably because thoracotomy to implant epicardial leads has been replaced by transvenous endocardial placement which now carries an operative mortality of less than 1%.

LABORATORY EVALUATION OF HEART BLOCK

Dr. Martin: There are two parts to the evaluation

TABLE 2
CLASSIFICATION OF A-V BLOCK

Site of Block	Escape Focus	Risk of Asystole
A-V node	Junctional	Slight
Subjunctional	Idioventricular	High

of heart block. In established second- or third-degree A-V block, the *site* in the conduction system at which the block occurs must be determined. In addition, in some patients with interruption of one or more ventricular conduction fascicles who have not yet developed overt A-V block, the *adequacy of the remaining fascicle(s)* should be assessed. The methods available for these evaluations are electrocardiography, His-bundle electrography and Holter monitoring.

Evaluation of Established A-V Block

Coincident with recent advances in our understanding of the pathogenesis of conduction system disease and the advent of cardiac pacing as effective therapy for heart block, there has emerged a useful new scheme for classifying A-V block. This approach is based upon the *location of the block* within the conduction system. Determining the site effectively predicts the risk of asystole (Table 2). The risk is slight in patients with *block within the A-V node*, because pacemaker cells in the A-V junction but distal to the site of the block will reliably pace the heart if block in the A-V node becomes complete. In contrast, *subjunctional block* occurs below the location of junctional pacemaker cells. When subjunctional block becomes complete, the heart beat must arise from a focus within the ventricular conduction system. Such idioventricular beats occur at a considerably slower rate than junctional beats, are unreliable and may stop suddenly. Thus, the patient is prone to Stokes-Adams attacks.

TABLE 3
DIFFERENTIATION OF HEART BLOCK
BY ELECTROCARDIOGRAPHY

	A-V Nodal Block	Subjunctional Block
Complete heart block	Junctional rhythm "Normal" QRS Rate 40-60 No syncope	Idioventricular rhythm Wide QRS Rate 30-40 Syncopal history
2° A-V block	Mobitz I	Mobitz II
1° A-V block	Long PR "Normal" QRS	Long PR Fascicular block

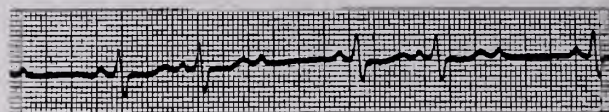


Fig. 4 Lead II electrocardiogram shows second degree A-V block of Mobitz II type. The P-R interval of each conducted beat is constant (0.16 sec).

The standard ECG offers important clues to the level of block within the conduction system (Table 3). During complete heart block, the ventricular rate and QRS morphology identify the source of the ventricular rhythm (junctional or idioventricular) and, thus, the level of the block. Second degree block also can be reasonably well localized by the Mobitz classification system: Mobitz I block (characterized by the Wenckebach phenomenon) usually occurs within the A-V node, whereas Mobitz II block is usually located in the more distal conduction system. An example of Mobitz II block, the hallmark of which is the presence of a nearly constant P-R interval before each conducted beat, is shown in Fig. 4. When first degree A-V block is present, the ECG is of limited value in predicting the site of the prolongation of the P-R interval.

The development of His-bundle electrography⁶ in 1969 provided a new means of establishing the site of A-V block. A His-bundle electrogram is recorded from the tip of an electrode catheter positioned with its tip adjacent to the bundle of His (Fig. 5A). The intracardiac electrogram recorded from this catheter (Fig. 5B) shows deflections caused by low right atrial depolarization (A), depolarization of the His-bundle (H) and depolarization of the ventricle (V). These deflections permit

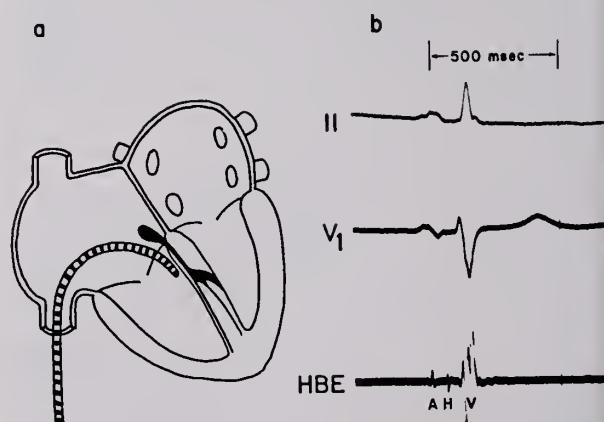


Fig. 5 A. Diagram of the technique used to record His-bundle electrogram. An electrode catheter passes from the inferior vena cava across the tricuspid valve and lies with its tip adjacent to the bundle of His on the right side of the ventricular septum. B. Simultaneous records of ECG lead II, V₁ and His-bundle electrogram (HBE) show the deflections produced by depolarization of the low right atrium (A), His-bundle (H) and ventricle (V).

TABLE 4
DIFFERENTIATION OF HEART BLOCK BY HIS
BUNDLE ELECTROGRAPHY

	A-V Nodal Block		Subjunctional Block	
Complete heart block	(A)	(H-V)	(A-H)	(V)
2° A-V block	(A-H-V)	(A)	(A-H-V)	(A-H) (A-H-V)
1° A-V block	(A-H-V)		(A-H-V)	

measurement of the time required for impulse transmission from the atrium through the A-V node to the His-bundle (A-H interval) and from the His-bundle to ventricle (H-V interval). When the H-V interval exceeds 55 msec, "first degree" block below the A-V junction is inferred. When second- or third-degree block is present, the His deflection localizes the site of block as shown in Table 4.

Evaluation and Management of Fascicular Block

Sclerodegenerative disease is progressive and often involves individual fascicles before causing complete heart block. Can this fact be used to identify candidates for complete block before they experience complications such as those in the case presented today?

The electrocardiogram establishes the presence of block in one or more of the individual fascicles: the right bundle and the anterior and posterior divisions of the left bundle. Right bundle branch block (RBBB) and left anterior hemiblock (LAHB) are common as is the combination of RBBB plus LAHB. A high percentage (perhaps a majority) of cases of subjunctional complete heart block due to sclerodegenerative disease have RBBB plus LAHB before complete block develops. RBBB, LAHB and 1° A-V block had been present for at least a year before cardiac arrest occurred in our patient presented today. This might have served as a clue to be wary of the possibility that his syncope resulted from episodes of complete block with asystole. The key question, however, is "what are the odds that a patient with RBBB + LAHB ± 1° A-V block will progress to complete block?"

Unfortunately, prospective data on the natural history of multifascicular block are limited and somewhat contradictory. DePasquale and coworkers followed 83 patients with RBBB + LAHB for three years and found only 17% required pacemaker implantation.⁷ In contrast, Kulbertus found that RBBB + LAHB progressed to 2° or 3° block in 32% of his patients and he extrapolated from his data to suggest that 80% would develop complete block within 11 years of the discovery of bifascicular block.⁸

Even if the rate of progression is as high as that suggested by Kulbertus, it is hard to justify the implantation of a permanent pacemaker if heart block may not occur for ten or more years. Can His-bundle electrography identify those patients with bifascicular block who are at risk? Measurement of the H-V interval detects a subset of patients with conduction delay in the remaining fascicle; that remaining fascicle can also be stressed by rapid atrial pacing. Using this approach, Narula and coworkers have reported encouraging preliminary findings⁹ Fifty-four patients with RBBB + LAHB + 1° block were studied by His-bundle electrography. No permanent pacemakers were implanted. Patients who had a normal H-V interval had a subsequent mortality of 11% compared to 40% in patients with a prolonged H-V interval less than 60 msec and 80% in patients with an H-V interval of greater than 65 msec. Patients with RBBB + LAHB + 1° A-V block who had a history of syncope, but who were found to have a normal H-V interval, had no mortality and none subsequently developed complete heart block.⁹ Unfortunately, a normal H-V interval does not guarantee that patients with bifascicular block may not have intermittent complete heart block.^{10, 11}

The studies outlined above suggest an approach to the evaluation and management of patients with multifascicular block which is outlined as a therapeutic algorithm in Fig. 6. Implicit in the strategies used in this algorithm are the following facts: (1) Complete block can be intermittent; (2) RBBB + LAHB is sufficiently common to make it logistically

(Continued on page 522)

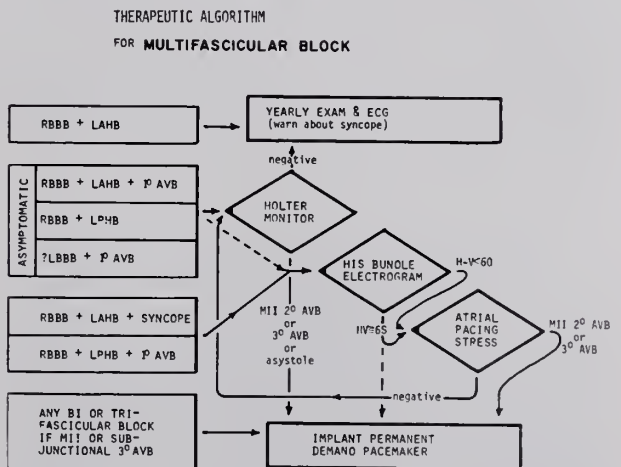


Fig. 6 Algorithm for the evaluation and treatment of multifascicular block. RBBB = right bundle branch block; LAHB = left anterior hemiblock; AVB = atrio-ventricular block; LPHB = left posterior hemiblock; LBBB = left bundle branch block; MII = Mobitz II.

Evaluation of Multiple Sclerosis Patients by Cerebrospinal Fluid

ELEVATION OF CEREBROSPINAL FLUID (CSF) gamma globulin and reversal of the ratio of beta globulin and gamma globulin on CSF protein electrophoresis have been used to support the diagnosis of multiple sclerosis. The use of the CSF immunoglobulin G (IgG)/albumin ratio has been suggested as an adjunct to the diagnosis of multiple sclerosis. Our recent studies confirm this suggestion.

MATERIALS AND METHODS

Spinal fluid from 114 patients with various neurological disorders was obtained by lumbar puncture. Cell counts were performed by a standard procedure.¹ *Total Protein* was determined on freshly centrifuged specimens by the trichloroacetic acid precipitation method.² Spinal fluid was concentrated 20 fold using a minicon-Concentrator.³ Total protein and percentage of each fraction were reported.

Albumin and IgG concentration were determined by radial immunodiffusion.⁴

RESULTS

Of 114 patients studied, 32 had multiple sclerosis as shown in Table 1. The age of the multiple sclerosis patients ranged from 19 to 70 years with a mean age of 36 years. Forty-eight percent (14) of the patients were between 25 to 35 years of age. Eighty-six percent (26) were women as shown in Table 2. Gamma globulin ranged from 5% to 33% with a

mean of 15.5%. In our laboratory, the normal range for gamma globulin is 1% to 8% of the total protein, as shown in Table 3.

Eighty percent (25) of our patients with multiple sclerosis had gamma globulin levels above normal as shown in Table 4.

IgG was elevated in 76% (23) of the patients with multiple sclerosis, as shown in Table 5.

No significant deviations from normal mean values were found regarding albumin, alpha 1, alpha 2, or beta globulin fractions.

DISCUSSION

CSF immunoglobulins usually originate from the blood. In multiple sclerosis and other demyelinating diseases, cells in the CSF synthesize immunoglobulin.^{5, 6} The composition of the IgG in the CSF and brain of multiple sclerosis patients differs from the composition of IgG in the patients' serum. There is increased ratio of kappa to lambda light chains in the CSF compared to the patients' own serum.⁷ CSF albumin is derived from the blood in both health and disease. Increased CSF albumin is the result of increased vascular permeability.⁶

Bergmann and Cosgrove and Agius found that 93% of patients with multiple sclerosis had a decreased beta and gamma globulin ratio.^{8, 9} Of our patients with multiple sclerosis only 37% (12) showed decreased beta-gamma ratio.

The CSF findings in our study are consistent with previous reports of elevated gamma globulin and IgG along with abnormal IgG/albumin ratio in approximately 50% of multiple sclerosis patients.⁸ Lymphocytosis in the spinal fluid (11-50/cu mm) was present in 23% of the patients. Elevated cell counts coincide with the high gamma globulin and IgG.

Gamma globulin elevation is nonspecific. Cerebrospinal-fluid gamma globulin often is increased in encephalitis, neurosyphilis, fungal meningitis and systemic diseases in which the level of serum gamma globulin is greatly increased.¹⁰ Oligoclonal heterogeneity in the gamma region have been reported on agarose electrophoresis.¹¹

Recognizing that the diagnosis of multiple sclerosis is often difficult, the authors report results of studies which confirm the suggestion that the cerebrospinal fluid immunoglobulin G (IgG)/albumin ratio be used as an adjunct to the diagnosis. Dr. Kaleemullah was a Resident in Clinical Pathology at St. Luke's Hospital at the time this paper was written. Dr. O'Kell is Chairman, Department of Pathology, St. Luke's Hospital.

TABLE 1
CEREBROSPINAL FLUID OF MULTIPLE SCLEROSIS PATIENTS

Age	Sex	Serum Protein		TP mg%	ALB mg%	Alpha 1 %	Alpha 2 %	Beta %	Gamma %	IgG mg%	IgG/ Alb	WBC / cu mm	RBC	Glucose mg%	CUL
		TP gm%	ALB gm%												
37	F	7.0	4.0	32	30	3	6	10	5	3.3	0.11	L 9	1	66	N
24	F	6.7	4.2									P 2			
				38	27	5	7	12	6	3.6	0.13	L 2	—	—	N
27	F	—	—	41	36	1	1	10	17	11.5	0.32	P 1	—	—	N
70	F	7.2	4.5	29	2.5	6	6	16	10	2.2	0.82	—	—	64	N
38	M	7.1	4.5	38	22	—	—	11	5	5	0.23	—	4	58	N
34	F	7.3	4.3	29	19	5	11	23	14	3.5	0.18	—	12	56	N
31	F	7.2	4.7	39	32	3	5	10	8	3.8	0.12	L 6	—	—	N
25	F	7.3	4.6	37	25	4	4	10	25	12	0.4	L 15	—	62	N
47	F	6	3.6	54	46	1	3	12	13	7	0.15	L 3	—	—	N
24	M	7.6	4.7	66	42	2	2	9	26	16	0.38	L 48	42	—	N
30	F	7.0	4.5	40	33	3	3	10	18	7	0.21	L 4	2	—	N
30	F	7.5	4.7	53	24	3	4	10	32	16	0.67	L 57	8	—	N
44	F	7.3	4.0	47	30	3	4	12	18	14	0.47	L 8	2	—	N
19	F	8.2	5.0	25	15	3	3	11	11	3.1	0.21	L 41	46	—	N
34	F	7.5	4.5	31	23	2	4	8	13	3.6	0.16	L 1	L 1	69	N
31	F	7.1	4.1	26	23	4	4	12	8	3.0	0.12	—	1	—	N
25	M	7.3	4.5	43	4.4	2	4	12	18	6.4	1.04	L 6	48	66	N
												P 7			
54	F	7.6	4.6	56	27	2	3	11	18	10	0.37	L 7	6	—	N
44	M	6.7	4.7	37	17	2	5	13	17	4.0	0.24	L 6	—	—	N
30	F	7.5	4.0	33	12	2	3	9	33	5.1	0.43	L 13	—	—	N
56	F	7.0	3.6	27	19	3	5	17	12	3	0.16	L 1	—	61	N
20	F	7.7	3.8	56	35	3	5	11	12	7.3	0.21	L 44	—	—	N
												P 5			
61	F	7.0	4.1	36	13	5	7	16	18	4.8	0.37	L 1	—	—	N
39	F	7.5	4.5	26	18	5	6	8	15	4	0.22	L 1	—	—	N
25	F	7.3	4.2	30	13	4.0	1.0	9.0	16.0	8.6	0.64	L 6	—	65	N
34	M	7.7	4.2	57	35	5.0	4	13	14	8	0.23	L 7	—	97	N
31	F	7.9	4.6	45	24	—	—	—	—	3.3	0.16	L 20	—	49	N
22	M	7.7	4.5	35	15	5	5	12	6	2.7	0.18	L 13	193	70	N
55	F	7.1	4.1	39	13	3	8	15	22	7.8	0.39	L 7	69	63	N
29	F	7.2	4.1	31	15	—	—	—	—	6.6	0.44	L 1	—	64	N
												P 1			
27	F	6.8	4.4	35	21	6	6	5	4	3	0.14	0	4	61	N
55	F	7.4	4.5	41	21	6	5	11	8	2.7	0.13	0	1	60	N

Note: F = female, M = male, TP = total protein, ALB = albumin, WBC = White blood cells, RBC = Red blood cells, CUL = culture, N = negative, L = lymphocytes, P = polymorphonuclear neutrophils.

TABLE 2

Age	No. of Patients
19-70 years	32 (total)
19-24 years	5
25-35 years	14
35-45 years	6
Over 45 years	7

TABLE 3
CSF PROTEINS

	Range	Mean	"Normal"
Total Protein mg%	26-66	39	20-50 mg/100 ml
Albumin mg%	13-44	26.5	7-30 mg/100 ml
Beta globulin %	8-23	11.7	8-17% T.P.
Gamma globulin %	5-33	15.5	1- 8% T.P.
IgG mg%	2.2-16	6.25	1.0-3.1 mg/100 ml
IgG/Alb	0.11-1.04	0.30	<0.24

TABLE 4

Gamma Globulin % of TP	No. of Patients	Percent
5-10	6	20
11-15	9	30
16-20	8	26
21-30 or over	5	16

SUMMARY

Total protein, albumin, IgG and protein electrophoresis were performed on cerebrospinal fluid from 32 patients with multiple sclerosis. Total protein and albumin were normal in all fluids. IgG was elevated in 23 (76%) and the IgG albumin ratio was abnormal in 13 (42%). Electrophoretic gamma globulin was increased in 25 (83%) fluids and the beta gamma ratio reversed in 18 (56%). Study of cerebrospinal fluid protein is useful but not diagnostic of multiple sclerosis. IgG/albumin is consistent with multiple sclerosis when increased.

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TABLE 5

RELATIONSHIP OF INCREASED GAMMA GLOBULIN TO OTHER CSF FINDINGS IN MULTIPLE SCLEROSIS

Total No. M.S. Patients	No. of Pts.	Percent
Gamma globulin over 8%	25	83
IgG-3.1 mg/100 ml or more	23	76
IgG/Albumin over 0.24%	13	42
Lymphocytes/cm		
0-5	13	40
6-10	10	30
11-50	7	23

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Medical Grand Rounds

(Continued from page 519)

impossible to do detailed laboratory screening of all patients with this combination; (3) the available diagnostic procedures are moderately expensive; (4) His-bundle electrography is invasive and requires hospitalization; and (5) implantation of a permanent pacemaker is quite expensive (approximately \$3,000 for initial implantation and \$500 per year for follow-up monitoring and regular pulse generator replacement) and causes appreciable morbidity. The algorithm provides a relatively conservative course (solid lines) and more aggressive options (dotted lines) should His-bundle electrography subsequently prove to be as useful as the data of Narula suggest.

It must be emphasized that this approach to multifascicular block is as yet unproven and is based on preliminary data which require confirmation. It is proposed only to offer an alternative to the present unsatisfactory choice between watchful waiting (hoping the patient does not die of his first Stokes-Adams attack) or implanting many un-

necessary pacemakers to prevent a few deaths from heart block.

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Management of External Small Bowel Fistulas

A Review

THIS IS A REVIEW of the experience with intestinal fistulas at the Ellis Fischel State Cancer Hospital during the ten-year period between Dec. 31, 1964 to Dec. 31, 1974. An evaluation was attempted regarding the final outcome of this complication in this selected group of patients with malignant tumors, particularly in terms of mode of management and timing of operative repair when needed.

MATERIALS AND METHODS

During this period, there were 19 instances of enterocutaneous fistulas involving the small bowel. All but three of the fistulas followed some kind of abdominal surgery. The remaining three were spontaneous, secondary to tumor invasion or necrosis or both.

ETIOLOGY

Nine of the 19 fistulas resulted from complications occurring after operative treatment of intestinal obstruction (Table 1). The most common primary diagnosis was carcinoma of the colon and rectum. Most fistulas were due to surgical lesions to the bowel wall sustained during lysis of adhesions or were due to an anastomotic leak secondary to intestinal resections prompted by obstruction. Most of these patients had had previous surgical procedures and radiotherapy.

CLASSIFICATION AND RESULTS

It is important to separate these patients into those with high output fistulas and those with low output fistulas. Authors of previous papers on the subject differ as to the dividing point between high and low output. This dividing point has been differently placed at 100 cc, 200 cc and 500 cc of drainage per day. We tend to favor the 500 cc-per-day limit since we feel that this amount better separates the fistulas which are more likely to produce severe physiologic derangement including fluid and electrolyte imbalance and nutritional deficit. According to this concept, our group of patients has 12 high output fistulas, four low output fistulas and three in which no adequate recording of the drainage could be found (Table 2).

All patients dead within six weeks of onset of

the fistula were included as mortalities, if the fistula contributed to their deaths.

The overall mortality for the group was 52.6% (ten of 19 patients) (Table 2). One death was probably unrelated to the fistula in a patient with a spontaneous fistula who died as a result of a CVA which occurred shortly after admission.

The overall mortality for the high output group was 58.3%, or seven out of 12 patients. Of the 12 patients with high output fistulas, eight underwent operations aiming at control of their fistulas or their resultant sepsis. Four of the patients who were operated on died (50%). There were three deaths in the group of four not receiving operative treatment for control of the fistula (75%). The interval between onset and death was five weeks in two patients and four weeks and 12 days in the remaining two patients.

Of the four patients with low output fistulas, one was successfully operated on for resection of the involved bowel; one died of a CVA shortly after admission; another's fistula was closed with conservative management; the other died while on the same regimen.

MANAGEMENT

Once the fistula was recognized, between the first and 15th postoperative day, an attempt was made to treat the patient according to the principles set up by Chapman, Foran and Dunphy: (1) control

TABLE 1
ETIOLOGY OF SMALL BOWEL FISTULAS

<i>Etiology</i>	<i>Number of Cases</i>
Operation due to intestinal obstruction	9
Spontaneous	3
Operation for removal of perineal metastasis after previous abdominoperineal resection	2
Operation for revision of ileal bladder	1
Pelvic exenteration	2
Post-drainage of subphrenic abscess	1
Post-resection of colo-cutaneous fistula	1
Total	19

TABLE 2
CLASSIFICATION AND MANAGEMENT RESULTS OF SMALL BOWEL FISTULAS

Classification	Total No. of Patients	Nonoperative Management	Successful	Operative Management	Successful	Total No. Of Deaths (% Mortality)
Low output	4	3	1 (33%)	1	1 (100%)	2 (50%)
High output	12	4	1 (25%)	8	4 (50%)	7 (58.3%)
Not determined	3	—	—	3	2 (66%)	1 (33%)
Totals	19	7	2 (25%)	12	7 (63.7%)	10 (52.6%)

of fistula, (2) control of sepsis and (3) nutritional support.¹

Control of the fistula was attempted mostly by introduction of sump drains and met with variable success. Most of the time, drains would work for some time but would become obstructed later, resulting in more spillage and skin excoriation. We have been favorably impressed by the use of a split mattress with gravity collection of the fistulous drainage with no dressing on the wound. The main difficulty with this modality is that many patients do not tolerate the prone position during prolonged periods of time.

Protection of the skin is an important point of management. We feel that Karaya powder is the best way to protect the skin. When this powder absorbs water, it forms an adherent layer which clings to the skin and effectively protects it. We are not impressed with aluminum paste which comes off rather easily when it comes into contact with dressings and bed sheets.

Sepsis constitutes the most important and, unfortunately, in our experience, the most frequent and lethal complication. Usually, either generalized peritonitis or an abscess with one opening connect-

ing with the bowel and the other to the skin mandates that early efforts be directed at providing adequate drainage of these abscesses, which sometimes requires limited surgical procedures directed at control of sepsis.

Combination of malnutrition and sepsis creates a formidable challenge to the patient's energy reserves which can be quickly depleted, leading to catabolism and death if positive nitrogen balance cannot be restored. Oral feedings usually can be started after the initial peritoneal sepsis has been controlled. Intravenous alimentation appears to have brought new hope for these patients by helping them to overcome this critical septic, catabolic period before oral feedings are possible. It is interesting that no direct relation has been found between the daily volume drained by a fistula and its chances of spontaneous closure.² This fact, as well as the observation that many patients with intestinal fistulas who are put on parenteral alimentation do not exhibit diminished volume of drainage,³ points to the important achievement of parenteral nutrition which has been to offer an adequate energy supply during a period when this is not possibly attained by the oral route. Later on, once the intestinal motility has been recovered, we feel that oral feedings are quite adequate, providing that the fistulous drainage can be managed adequately and that the patient is cooperative. We are beginning to use elemental diets since they fulfill the concept of seeking a positive nitrogen balance in the most physiologic way possible.

Once the fistula is well established and sepsis is under control, an attempt should be made to determine the fistulous location and to rule out distal obstruction. These may be achieved by careful x-ray examination using contrast media, both proximally and distally.

DISCUSSION

We were particularly interested in answering a few questions which appear to be paramount in

The author analyzes the external small bowel fistulas which have occurred in cancer patients treated at Ellis Fischel State Cancer Hospital during a ten-year period. Of the 19 cases encountered, 12 had high output fistulas, four had low output fistulas and three were undetermined. The three fistulas caused directly by tumor invasion were successfully treated, suggesting that this group of patients carries a better prognosis in terms of fistula. Dr. Horochowski is from the Department of Surgery. This investigation was supported in part by Public Health Service Research Grant CA-08023 and Clinical Cancer Training Grant CA-08018 from the National Cancer Institute.

the literature available on this subject. They are interrelated. How long should conservative treatment be pursued? What is the optimum time to operate on these patients if the fistula does not close spontaneously? Should the principles differ in patients with malignancy?

The literature dealing with the first two questions is somewhat confusing. Spontaneous closure of small bowel fistulas has been deemed unlikely by some authors,^{4, 5} but it is considered probable by others.^{2, 6} Operative attempts to close persisting fistulas, assuming that distal obstruction has been ruled out, have been advocated by some as best when done "early,"^{2, 4, 5, 7} but others prefer to wait until the patient is physiologically and nutritionally stabilized and infection is controlled so that a direct attack can be made through a clean field.^{1, 2, 8-10} We agree with the latter attitude even though we are unable to prove statistically the advantage of this approach through the analysis of our cases because of the small number in each group and the very grave underlying disease present in most of our cases. Our overall mortality is high (58.3%) but comparable to other studies in which fistulas in patients with malignant tumors were separately reported.^{6, 10} In that regard, perhaps, it is pertinent to point out that the prognosis concerning the fistulas seems different when the fistulas are spontaneous, produced by tumor invasion or tumor necrosis or both. Of the three patients in that category in our series, all were successfully treated with surgery. Furthermore, it appears obvious from published reports that patients with spontaneous fistulas associated with chronic inflammatory disease fare better than patients with postoperative fistulas.^{4, 6, 7, 10} These cases, perhaps, are comparable to the three cases of "spontaneous" fistulas in our series, all of which were caused by tumor invasion and were treated surgically with success.

Several different types of procedures have been used to treat these fistulas, including (1) simple closure, (2) resection and primary anastomosis and (3) total exclusion. They were all successful on different occasions, but we feel that the resection and primary anastomosis are best. However, it is impossible to resect the involved area in some of these irradiated patients with generalized abdominal tumors, and we have been impressed with the success of complete exclusion of the fistula in those cases, exteriorizing the involved loop as a mucous fistula.

In our series, we have not had enough patients

treated with intravenous hyperalimentation to be able to show the benefits of this kind of management. However, we are persuaded, as are others,^{1, 2, 5, 11} that this kind of nutritional support, as well as elementary diets,⁶ will improve results in this awesome complication. We believe this is achieved mostly by decreasing the number of patients who are taken to surgery in a deteriorating state. By gaining time, more fistulas will close spontaneously and more patients will experience successful surgery by being operated on at a more favorable time (about one month after onset of fistula), when their condition is improved and they are able to withstand a major procedure. This additional time also contributes to the resolution of the inflammatory reaction caused by abscesses and previous peritonitis, which facilitates dissection and, indirectly, success.

Distal obstruction is seldom the cause of persistent postsurgical fistulas since, generally, they follow a procedure during which obstruction was treated. However, distal obstruction should always be considered as a possibility.

Most of the persistent fistulas which do not close spontaneously are maintained by direct tumor invasion or by a true spontaneous enterostomy in which the involved loop is in contact with the skin due to dehiscence of the fascial planes. In the first case, it is probably best to avoid attempts at resection and to proceed to exclude the involved segment. In the latter, we favor laparotomy through a normal area of the abdominal wall with resection and anastomosis or total exclusion and anastomosis. We have not attempted and do not favor partial bypass of the intestinal contents with bowel incontinence.

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Contraindications: Pre-existing elevated serum potassium. Hypersensitivity to either component. Continued use in progressive renal or hepatic dysfunction or developing hyperkalemia.

Warnings: Do not use dietary potassium supplements or potassium salts unless hypokalemia develops or dietary potassium intake is markedly impaired. Enteric-coated potassium salts may cause small bowel stenosis with or without ulceration. Hyperkalemia (>5.4 mEq/L) has been

reported in 4% of patients under 60 years, in 12% of patients over 60 years, and in less than 8% of patients overall. Rarely, cases have been associated with cardiac irregularities. Accordingly, check serum potassium during therapy, particularly in patients with suspected or confirmed renal insufficiency (e.g., elderly or diabetics). If hyperkalemia develops, substitute a thiazide alone. If spironolactone is used concomitantly with 'Dyazide', check serum potassium frequently—both can cause potassium retention and sometimes hyperkalemia. Two deaths have been reported in patients on such combined therapy (in one, recommended dosage was exceeded; in the other, serum electrolytes were not properly monitored). Observe patients on 'Dyazide' regularly for possible blood dyscrasias, liver damage or other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving Dyrenium (triamterene, SK&F). Rarely, leukopenia, thrombocytopenia, agranulocytosis, and aplastic anemia have been reported with the thiazides. Watch for signs of impending coma in acutely ill cirrhotics. Thiazides are reported to cross the placental barrier and appear in breast milk. This may result in fetal or neonatal hyperbilirubinemia, thrombocytopenia, altered carbohydrate metabolism and possibly other adverse reactions that have occurred in the adult. When used during pregnancy or in women who might bear children, weigh potential benefits against possible hazards to fetus.

Precautions: Do periodic serum electrolyte and

BUN determinations. Do periodic hematologic studies in cirrhotics with splenomegaly. Anti-hypertensive effects may be enhanced in post-sympathectomy patients. The following may occur: hyperuricemia and gout, reversible nitrogen retention, decreasing alkali reserve with possible metabolic acidosis, hyperglycemia and glycosuria (diabetic insulin requirements may be altered), digitalis intoxication (in hypokalemia). Use cautiously in surgical patients. Concomitant use with antihypertensive agents may result in an additive hypotensive effect. 'Dyazide' interferes with fluorescent measurement of quinidine.

Adverse Reactions: Muscle cramps, weakness, dizziness, headache, dry mouth; anaphylaxis; rash, urticaria, photosensitivity, purpura, other dermatological conditions; nausea and vomiting (may indicate electrolyte imbalance), diarrhea, constipation, other gastrointestinal disturbances. Necrotizing vasculitis, paresthesias, icterus, pancreatitis, xanthopsia and, rarely, allergic pneumonitis have occurred with thiazides alone.

Supplied: Bottles of 100 capsules; in Single Unit Packages of 100 (intended for institutional use only).

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Antivert[®]/25 (meclizine HCl) 25 mg. Tablets for vertigo*

■ **Most Widely Prescribed**—Antivert is the most widely prescribed agent for the management of vertigo* associated with diseases affecting the vestibular system such as Menière's disease, labyrinthitis, and vestibular neuronitis.

■ **Relief of Nausea and Vomiting**—Antivert/25 can relieve the nausea and vomiting often associated with vertigo*.

■ **Dosage for Vertigo***—The usual adult dosage for Antivert/25 is one tablet t.i.d.

BRIEF SUMMARY OF PRESCRIBING INFORMATION

*INDICATIONS. Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows:

Effective: Management of nausea and vomiting and dizziness associated with motion sickness.

Possibly Effective: Management of vertigo associated with diseases affecting the vestibular system.

Final classification of the less than effective indications requires further investigation.

CONTRAINDICATIONS. Administration of Antivert (meclizine HCl) during pregnancy or to women who may become pregnant is contraindicated in view of the teratogenic effect of the drug in rats.

The administration of meclizine to pregnant rats during the 12-15 day of gestation has produced cleft palate in the offspring. Limited studies using doses of over 100 mg./kg./day in rabbits and 10 mg./kg./day in pigs and monkeys did not show cleft palate. Congeners of meclizine have caused cleft palate in species other than the rat.

Meclizine HCl is contraindicated in individuals who have shown a previous hypersensitivity to it.

WARNINGS. Since drowsiness may, on occasion, occur with use of this drug, patients should be warned of this possibility and cautioned against driving a car or operating dangerous machinery.

Usage in Children: Clinical studies establishing safety and effectiveness in children have not been done; therefore, usage is not recommended in the pediatric age group.

Usage in Pregnancy: See "Contraindications."

ADVERSE REACTIONS. Drowsiness, dry mouth and, on rare occasions, blurred vision have been reported.

More detailed professional information available on request.

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New York, New York 10017



RECENT CHANGES

federal register

**Providing
Drug Information
to Physicians**

**Informational
Bulletin #433-76**

**National
Health
Insurance**

**special report
Malpractice
insurance:**

**drug
bulletin**

**Health care doesn't
need more red tape**

**Drug firms challenge
'MAC' rules**

**Drug
Substitution**

RESEARCH

Mailgram (2)

THERE ARE A LOT OF PEOPLE GETTING BETWEEN YOU AND YOUR PATIENT.

Medicine today is in the spotlight, subjected to all kinds of scrutiny. Your control over patient therapy is being monitored, judged and occasionally abrogated, sometimes by unknown third parties.

The worry is that in the wake of this focus, the relationship between you and your patient will be weakened, without offsetting benefits. Consider three examples:

Drug substitution In most states, pharmacy laws, regulations or professional custom stipulate that your non-generic prescriptions be filled with the precise products you prescribe. But in the last five years, a dozen or more State laws have been changed, permitting the pharmacist in most cases to select a product of the same generic drug to fill any prescription.

Ironically, this dilution of physician control has taken place against a background of growing evidence that purportedly equivalent drug products may be inequivalent, since neither present drug standards nor their enforcement are optimal. In fact, the FDA itself says it has not enforced the same standards for hundreds of "follow-on" products that it had applied to the original NDA approvals. Thus physician control over patient therapy is being eroded with a risk that patients may be exposed to drugs of uncertain quality.

The major advertised claim for substitution is reduced prescription prices for consumers. Yet no documentation of any significant savings has been produced.

MAC Maximum Allowable Cost, MAC for short, is a Federal regulation designed to cut the Government's drug bill by setting price ceilings for drugs dispensed to Medicare and Medicaid patients. Unless the prescriber certifies on the prescription that a particular product is medically necessary, the Government intends to pay only for the cost of the lowest-priced, purportedly equivalent,

generally-available product. The effect of the program may be that elderly and indigent patients will be restricted to products which someone in Washington believes are priced right. Practicing doctors will have little to say about administration of the program, since Government will have absolute authority to make its choices stick.

The drug lag The future of drug and device research depends upon a scientific and regulatory environment that encourages therapeutic innovations. The American pharmaceutical industry annually is spending more than \$1 billion of its own funds and evaluating more than 1,200 investigational compounds in clinical research. Disease targets include cancer, atherosclerosis, viruses and central nervous system disorders, among others. But there is a major barrier to the flow of new drugs to your patients: The cost of the research is more than ten times what it was, per product, in 1962; and whereas governmental clearance of new drug applications took six months then, it commonly consumes two years now.

The FDA needs adequate time, of course, to consider data. But it is equally clear that the present approval process contributes to needless delay of needed therapy. That's why the increased efficiency of the drug approval process is vital to all our futures.

If these issues concern you, we suggest that you make your voice heard—among your colleagues and your representatives in State legislatures and in Washington.

It could make a difference in your practice tomorrow.



Pharmaceutical Manufacturers Association
1155 Fifteenth Street, N.W., Washington, D.C. 20005

President's Message

Most of you, if not all, received a communication from the Department of Consumer Affairs, Regulation and Licensing from the director, Alfred C. Sikes, who is an appointee of Gov. Christopher S. Bond. This concerns the Division of Professional Registration and the director of that department is George W. Uffmann. This pamphlet discusses Federal Licensure and Re-Licensure.



Max S. Franklin, M.D.

HEW is considering a proposal for "credentialing" health manpower so that national certification would be developed as an alternate to state licensure. The pamphlet goes on to say that the Board of Healing Arts plus all the other boards in the Division of Professional Registration are very much against this type of thing. It also states that they are as yet unable to obtain copies of the proposal from HEW.

If the professional licensing boards are viewing this proposal with alarm, we doctors certainly must view it with more than alarm. Most of us agree that we do not want Big-Brother Government.

We are already being double-taxed by the federal government and by the state for narcotic licenses and now to add Federal Licensure with a hint of Re-Licensure is further double taxation. Although the financial aspect may be a trifle, I am beginning to understand more completely why the Boston Tea Party came about.

None of this is official as yet. However, not too many months ago when I was at a meeting in Washington, the Counsel for Senator Kennedy told us that they were advising Federal Licensure and Re-Licensure and intended to put a bill into the hopper. I asked him if they were going to do that with all professions and his answer was "Of course not!" I then suggested to him that since they were singling out only a single profession, this might be considered unconstitutional and that they would certainly be called to court to settle the proposal. His answer was "We are counting upon it."

I would like to list a few of the things that immediately cross my mind and that I would consider objections to Federal Licensure and they are the following:

1. Many, if not most, of the older doctors who are all practicing physicians will quit or retire. Those who are eligible for Social Security will, of course, file for it so that the cost to the government will be tremendous in loss of income tax as well as in increased Social Security payments.
2. Many doctors might actually encourage Federal Licensure thinking that this will give them the right to practice in any or all states. It will be interesting to see what the states will have to say about that.
3. I am not a lawyer, but it is my feeling that this proposal is a violation of states' rights and, therefore, will be ruled unconstitutional unless it is done by an amendment to the Constitution. It is my belief that this type of amendment would not pass.
4. As mentioned before, a Big-Brother Government is not what the average American or the average American doctor wants. Yet, we are rushing headlong into that form of government, socialism.
5. If Federal Licensure should come about, another bureau will have to be established and many more government employees will be needed. Of course, this is the trend of things in politics—bureaucracy and more bureaucracy.
6. It is my assumption that this proposal for Federal Licensure will be fought by the

states as a violation of states' rights. It also will be fought by the American Medical Association as well as by the state medical associations. This means many costly legal procedures.

7. Few doctors, if any, will argue against continuing education. This has been recommended by the American Medical Association as well as by our Missouri State Medical Association. Continuing medical education should suffice in keeping up the caliber and ability and efficiency of the practicing physicians.

These are just a few of the many objections that I can think about in regard to Federal Licensure and extending Big-Brother Government. It would be worthwhile for all of us to write to our congressmen and senators as well as to Governor Bond to protest the proposal for Federal Licensure.

I have already written a personal letter to Dr. Theodore Cooper, the Assistant Secretary of Health for HEW.

Attention!
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(See Page 530)

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The WOMAN'S AUXILIARY

FALL CONFERENCE BANQUET

Wednesday, October 20

Ramada Inn—Jefferson City

Bring a State Candidate as Your Guest!

The Woman's Auxiliary to the Missouri State Medical Association extends this special invitation to join us at our Fall Banquet. Please take advantage of this unique idea to introduce the MSMA to your candidate and your candidate to the MSMA.

Social Hour—6:30 p.m.
(Cash Bar)

Dinner—7:30 p.m.

Entertainment—"The Fine Art of Exotic Dance"



Woman's Auxiliary

*"We are members one of another."
The Epistle of Paul to the
Ephesians 4:25*

Membership in the Woman's Auxiliary is a unique gift from our husbands. The physician supports his profession through participation in his medical association; the physician's wife supports her husband *and* his profession through her membership in the component organization.



Mrs. George P. Wilson
President

The positive aspects of Auxiliary membership are numerous and varied. This is the medium through which, firsthand, we can glean and dispense pertinent and critical knowledge to our communities and to each other. It provides the vehicle through which our efforts are identified as contributions to medicine.

Participation in the Auxiliary is what the individual wishes it to be in terms of her interest and involvement. With her dues, she provides financial support for education, development of health-related programs and resources to extend the aims of her organization. When she adds her personal service in the Auxiliary's name, she demonstrates a message more eloquent than words.

At the same time she is giving, she also receives because her membership provides a wealth of information, enriching associations and satisfying returns on her investment. Each member, in her daily life, is a contributor of herself; the added bonus of Auxiliary membership is her identification with a cause in which she believes.

This month heralds the beginning of new efforts to involve and interest both continuing and prospective members. We extend our heartfelt invitation to every doctor's wife to join us in the knowledge that together, we can do more. Information is readily available through our County Auxiliary presidents listed in the new MSMA Membership Directory and our MSMA Auxiliary Membership Chairman, Mrs. Donald Fakhoury, 4332 N. Central, Kansas City 64116.

* * *

Our biannual meeting, the Fall Conference, will be held in Jefferson City on October 20-21. The Wednesday evening Banquet will provide for us an opportunity to honor our physician-husbands. Your presence is cordially solicited. This election year has prompted us to open the Banquet to your candidates seeking state office.

Will you please invite a candidate of choice to be your guest at this Banquet? We will be privileged to recognize your guest and extend to him or her the warm hospitality of our medical family.

This is an opportunity for each husband and wife to join in providing an occasion conducive to informal exchange between the prospective legislator and organized medicine.

From the Medical Schools



SAINT LOUIS UNIVERSITY

Thomas R. Thale, M.D., professor of psychiatry and associate professor of social work, has been appointed acting chairman of the Department of Psychiatry at Saint Louis University School of Medicine. The announcement was made by *David R. Challoner*, M.D., dean.



Dr. Thale

Dr. Thale, formerly in the private practice of psychiatry in St. Louis, has been a member of the Saint Louis University medical faculty since 1950. He was executive secretary of the Administrative Committee of the Department of Neurology and Psychiatry from 1950 to 1958. In 1958, while remaining a member of the Saint Louis University clinical faculty, he assumed the new post of clinical director at St. Louis State Hospital. In 1965, he resumed full-time status at Saint Louis University as clinical director of David P. Wohl Memorial Mental Health Institute. He was named professor of psychiatry in 1970 and vice-chairman of the Department of Psychiatry in 1972.

Dr. Thale succeeds *Edward T. Auer*, M.D., who has accepted the position of medical director at the Institute of Pennsylvania Hospital in Philadelphia. The Institute is a private psychiatric facility with a staff of 190 psychiatrists. It is part of Pennsylvania Hospital, which was founded in 1751 by Benjamin Franklin and Dr. Thomas Bond.

Elliot Korn, a sophomore medical student and the only medical student in the St. Louis area certified in Cardio-Pulmonary Resuscitation (CPR) by the St. Louis Heart Association, took part in the training of approximately 60 interns and residents of the Saint Louis University Hospitals in CPR. The course, sponsored by the St. Louis Heart Association, marks the first time a medical student has been involved in such an inservice program.

An instructor training course for 12 to 16 Saint Louis University medical students will be conducted by the Heart Association in October. These students in turn, will train the 1977 freshman class of 160 medical students.

Dr. Jerome T. Y. Shen, clinical professor of pediatrics, will conduct a round-table discussion of "Private Practice of Adolescent Medicine" at the Annual Meeting of the American Academy of Pediatrics in Chicago in October.

As chairman of the Health Sub-Committee of the Missouri Governor's Committee for Children and Youth, Dr. Shen presided at one session of a State-wide Conference on Child Abuse and Neglect in Jefferson City in June. The Conference was co-sponsored by the Missouri Division of Family Services. The new child abuse and neglect law of Missouri was drafted by the Health Sub-Committee.

UNIVERSITY OF MISSOURI-COLUMBIA

A film crew from the National Foundation-March of Dimes was at the Medical Center on July 27 to

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film activities of the Neonatal Intensive Care Unit.

Dr. Elizabeth James, director of the unit, is the leader of a team of specialists who are conducting a series of seminars involving the care of "high risk" mothers and infants for practicing physicians and nursing personnel in Missouri. The seminars, sponsored by the National Foundation-March of Dimes, are considered a model for a nationwide program. The movie about the seminars and the Medical Center's Intensive Care Unit will be shown at the national meeting of the Foundation at New Orleans in December.

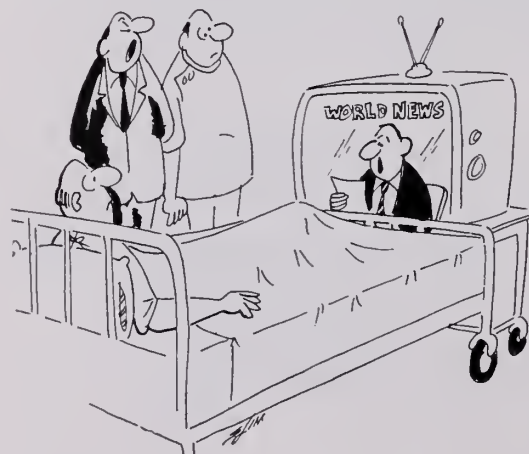
Dr. James, *Dr. William Trumbower* (obstetrician-gynecologist), *Mary Jo Judge* (perinatal nurse) and *Sandy Lollis* (social worker) will visit 20 communities during the next five months in a continuing effort to make the program available to every Missouri community hospital that is interested. The programs began in March, 1974.

The team of specialists from the Medical Center will give the one-day programs in the following communities: Branson, Kennett, Nevada, Marceline, Monett, Moberly, Fulton, Mexico, Jefferson City, Perryville, Butler, Poplar Bluff, Boonville, Dexter, Brookfield, Rolla, Springfield, Joplin, Waynesville and Columbia (Boone County Hospital).

Dates for the annual M.D. Day scientific session, alumni reunion and football Saturday (Tigers vs. North Carolina) will be October 1-2. *Dr. William Bradshaw*, medical director for continuing education, is arranging a scientific session that will include physicians from North Carolina. An alumni banquet will be held on the evening of October 1.

UNIVERSITY OF MISSOURI-KANSAS CITY

The School of Medicine has received a gift of



"We're using it as a substitute for shock therapy."

\$100,000 from the Margaret B. Hashinger Trust to establish a Distinguished Professorship in the name of her husband, Dr. Edward H. Hashinger.

Dean Richardson K. Noback has announced the addition of three faculty members during the summer.

Dr. Kyle Peterson, Ph.D., an anatomist, is from the University of Maryland School of Medicine. His special interests are in cytogenetics.

Dr. Bernard Rice has joined the faculty as a docent, professor and head of the Section of Endocrinology and Metabolism. Dr. Rice is from the Ochsner Clinic where he was head of the Division of Endocrine Research, and Tulane University School of Medicine, where he was an associate clinical professor of medicine.

Dr. James Sowers has joined the faculty as a docent and assistant professor. He is a 1971 graduate of the University of Missouri-Columbia. After a residency in medicine in Birmingham, Ala. and St. Louis, Dr. Sowers completed a two-year fellowship in endocrinology at UCLA.

Dr. C. Barber Mueller, professor of surgery and former chairman of surgery at the McMasters University School of Medicine, was a visiting docent recently. He discussed "McMasters and UMKC: A Comparison."

Dr. Robert Olson, Doisy Professor of Biochemistry at St. Louis University, also visited UMKC as a docent. He spoke on "Malnutrition in Thailand: A Challenge to Medicine" at the University Hour.

Construction of the new Truman Medical Center continues to proceed on schedule and the dedication ceremony is scheduled for Sunday, November 14 at 2 P.M. Members of the MSMA, their families and friends are invited to attend this event.

WASHINGTON UNIVERSITY

The inventor of the revolutionary EMI Brain and Body Computed Tomography Scanners has been named to deliver the fifth annual Wendell G. Scott Lecture at Washington University's Mallinckrodt Institute of Radiology.

Godfrey Newbold Hounsfield, F.R.S., was scheduled to speak on "Description of Computed Tomography and Its Future" on September 13 in Scarpellino Auditorium.

Mr. Hounsfield was the 1975 recipient of the Lasker Award, America's top scientific honor, which described his invention of the scanner as one of the most important contributions to medical science since the discovery of the x-ray in 1895.

Interim Statement on Breast Cancer Diagnosis

From The
American College of Radiology
Commission on Cancer

I. INTRODUCTION

Mammography has proven to be the most effective diagnostic tool so far developed for the detection of breast cancer at an early stage before it spreads to regional lymph nodes. This early detection increases the probability of cure. Mammography at appropriate intervals in asymptomatic women over age 35 promises to reduce significantly the number of deaths from breast cancer.

Since there is now no definite scientific evidence with regard to:

1. optimal age for the initial mammogram;
2. frequency of examination;
3. data on possible long term radiation risk;

this statement is being issued, as a summary of current informed opinion.

II. CARE OF WOMEN WITH SYMPTOMS

In women who have symptoms or physical findings suggestive of possible breast cancer, medical decisions must be individualized to fit the patient's needs. Under these circumstances, mammography is an integral part of the evaluation of the patient.

III. SCREENING OF ASYMPTOMATIC WOMEN

Recognizing that definitive data are not yet available that allow the establishment of firm criteria that define a protocol for the screening for breast cancer in asymptomatic women, the ACR recommends the following:

1. All women should have annual physical examination of the breasts and be taught breast self-examination.
2. For asymptomatic women the first, or baseline, mammographic examination should be performed between the ages of 35 and 40.
3. Subsequent mammographic examinations should be performed at one- to three-year intervals unless more frequent examination is medically warranted.
4. After age 50, annual or other regular interval examinations, including mammography, should be performed.
5. Although the carcinogenic effects of radia-

tion at current levels of exposure are probably immeasurably small, continuing attempts to reduce exposure should be made. However, image quality must be preserved for accurate diagnosis to insure the best risk/benefit (cure) ratio.

6. Each radiologist should assure the periodic monitoring of his equipment and procedures to determine that the patient's exposure is being maintained at the lowest feasible level.

IV. RESEARCH PROGRAMS

The protocol currently being followed by the NCI/ACS-sponsored "Breast Cancer Detection Demonstration Projects" should be pursued so that the data are as complete and accurate as possible in order that meaningful conclusions can be drawn. Follow-up of the patients must be carried out for a number of years to insure collection and evaluation of the data. Theoretical concerns of possible radiation-induced breast cancer do not warrant change in the current protocol of the "Breast Cancer Detection Demonstration Projects." Estimates of risk that include a radiation carcinogenic effect are of dubious validity because of the lack of objective scientific evidence

Research must be continued and encouraged to:

1. improve methods for measurement of low level radiation;
2. further reduce the radiation dose in mammography consistent with good image quality;
3. determine the most appropriate age at which to begin screening for different risk groups;
4. define women of high risk;
5. define those mammographic findings that dictate re-examination at a shorter interval;
6. establish the appropriate intervals for re-examination; and
7. collect evidence of the benefits and risks of mammography.

V. FUTURE STATEMENTS

Further statements will be issued when additional valid information permits.

New Members

Daniel Abodeely, M.D., 918 Bellstone, Shrewsbury 63119, has become a member of St. Louis Medical Society. Dr. Abodeely is a native of Massachusetts, received his preliminary education at the College of the Holy Cross and his M.D. degree at St. Louis University in 1972. He specializes in radiology.

Eugene Adelman, M.D., 1035 Bellevue Ave., St. Louis 63117, has become a member of St. Louis Medical Society. Dr. Adelman is a native of Missouri, received his preliminary education at St. Louis University and his M.D. degree at St. Louis University in 1964. He specializes in neurology.

Ingrid R. Albert, M.D., Barnes Hospital, St. Louis 63110, has become a member of St. Louis Medical Society. Dr. Albert is a native of Michigan, received her preliminary education at Barnard College and her M.D. degree at Albert Einstein College in 1971. She specializes in dermatology.

Joseph T. Black, M.D., 4989 Barnes Hospital Plaza, St. Louis 63110, has become a member of St. Louis Medical Society. Dr. Black is a native of Illinois, received his preliminary education at the University of Rochester and his M.D. degree at Upstate Medical Center in 1965. He specializes in dermatology.

Dean Burgess, M.D., 4989 Barnes Hospital Plaza, St. Louis 63110, has become a member of St. Louis Medical Society. Dr. Burgess is a native of California, received his preliminary education at Occidental College and his M.D. degree at the University of California in 1967. He specializes in ophthalmology.

Paul Busse, M.D., Barnes Hospital Plaza, St. Louis 63110, has become a member of St. Louis Medical Society. Dr. Busse is a native of Illinois, received his preliminary education at Marquette University and his M.D. degree at St. Louis University in 1972. He specializes in radiology.

Rickey R. Carson, M.D., 111 Easton, De Soto 63020, has become a member of Jefferson County Medical Society. Dr. Carson is a native of Blytheville, received his preliminary education at Baylor University and his M.D. degree at the University of Arkansas in 1974. He is in general practice.

Isabelo (Caris) Castillo, M.D., S. Main St., Maryville 64468, has become a member of Northwest Missouri Medical Society. Dr. Castillo is a

native of the Philippines, received his preliminary education at Far Eastern University and his M.D. degree at Far Eastern University in 1969. He specializes in general surgery.

Lawrence S. Cohen, M.D., 4949 Rockhill Rd., Kansas City 64110, has become a member of St. Louis Medical Society. Dr. Cohen is a native of Newark, N. J., received his preliminary education at Rutgers University and his M.D. degree at New York Medical College in 1961. He specializes in internal medicine and cardiology.

James F. Conant, M.D., 111 Easton, De Soto 63020, has become a member of Jefferson County Medical Society. Dr. Conant is a native of St. Joseph, received his preliminary education at Missouri Western State College and his M.D. degree at the University of Missouri in 1975. He is in general practice.

Ray G. Cowley, M.D., Missouri State Chest Hospital, Mt. Vernon 65712, has become a member of Ozarks Medical Society. Dr. Cowley is a native of Venice, Utah, received his preliminary education at the University of Utah and his M.D. degree at the University of Utah in 1946. He specializes in internal medicine and pulmonary disease.

John W. Daake, M.D., 1325 S. Grand, St. Louis 63104, has become a member of St. Louis Medical Society. Dr. Daake is a native of St. Louis, received his preliminary education at Princeton University and his M.D. degree at St. Louis University in 1975. He is a resident in surgery.

Ratilal L. Dodhia, M.D., P.O. Box 2778, 20 E. 14th, Kansas City 64142, has become a member of Jackson County Medical Society. Dr. Dodhia is a native of Nairobi, Kenya, received his preliminary education at Jai Hind College and his M.D. at Grant Medical College in 1961. He specializes in pathology.

John F. Donovan, M.D., 1035 Bellevue, St. Louis 63117, has become a member of St. Louis Medical Society. Dr. Donovan is a native of Massachusetts, received his preliminary education at Boston College and his M.D. degree at St. Louis University in 1968. He specializes in surgery.

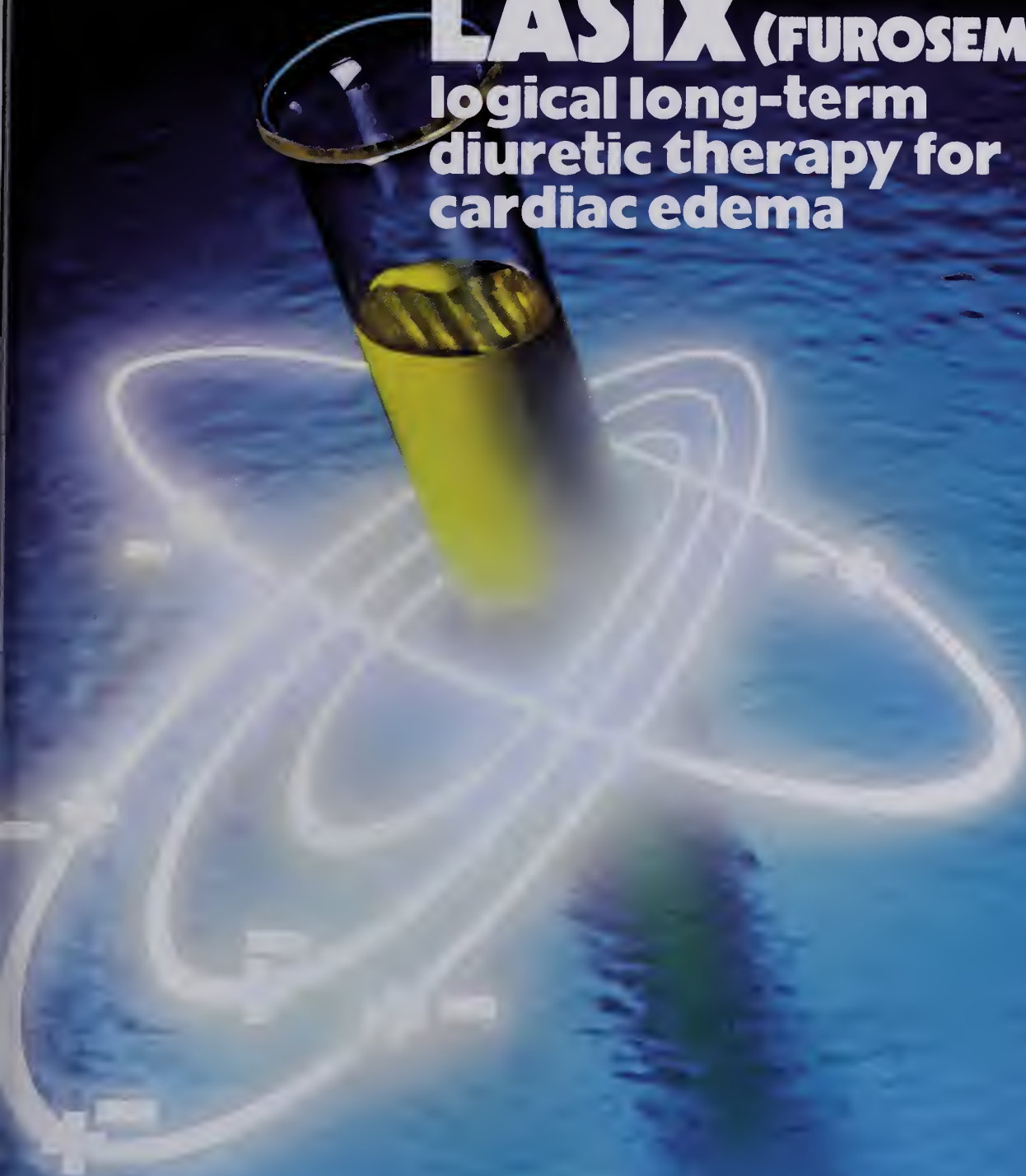
Robert P. Dunn, M.D., 701 E. 63rd, Kansas City 64110, has become a member of Jackson County Medical Society. Dr. Dunn is a native of Joplin, received his preliminary education at Phillips University and his M.D. degree at the University of Missouri in 1971. He specializes in diagnostic radiology.

When you control urine volume in your patients...

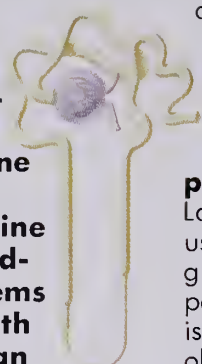
it's what's
not in the urine...
that makes

LASIX[®] (FUROSEMIDE)

logical long-term
diuretic therapy for
cardiac edema



(Please see last page of this advertisement for prescribing information.)



The Lasix® site of action is a distinctive advantage—for it results in fewer electrolytes in each liter of urine than with other commonly used diuretics.^{1,2} That is why, if you control urine volume through individual dosage adjustment, you may face fewer problems with electrolyte disturbances.³ As with any diuretic, electrolyte depletion can occur during therapy with furosemide. Careful clinical and laboratory observations are advisable.

The primary site of Lasix® action—at the loop of Henle—distinguishes Lasix from other commonly used diuretics. The action at this site enables Lasix to produce a dilute urine,⁴ which may be the basis for its relative freedom from electrolyte disturbances (hypokalemia).³ When the edematous patient has been stabilized, excessive diuresis can usually be

avoided by simple dosage adjustment. And, through regulation of urine volume by this dosage adjustment, you can control electrolyte excretion. Careful medical supervision is required.

Wide dose-related effectiveness for precise control of diuretic response. The Lasix® effect is dose-related. A prompt diuresis usually ensues with a single dose of 20 to 80 mg, given preferably in the morning. Depending on the patient's response, a second dose may be administered 6 to 8 hours later. Clinical and laboratory observations are advisable when doses exceeding 80 mg/day are given for prolonged periods. When maintenance of the edema-free state is desired, dosage may be adjusted to as low as 20 mg.

(Please see the dosage and administration section on the last page of this advertisement.)

Highly effective/short acting. The effectiveness of Lasix® has been clearly established in hundreds of thousands of patients in a decade of clinical experience. Consequently, Lasix is the most selected diuretic agent today in the treatment of edemas associated with congestive heart failure.

because fewer electrolytes
get into each liter of
urine than with other commonly
used diuretics...

LASIX® (FUROSEMIDE)

**the diuretic for both
initial & maintenance
therapy
in cardiac edema**

The onset of diuresis usually occurs within an hour and is usually complete within 6 to 8 hours; thus, patient inconvenience is minimized.

Useful in patients with renal impairment and severely depressed renal function. Unlike other commonly used diuretics, Lasix® can be useful in patients with renal impairment and severely depressed renal function. Even in the presence of renal insufficiency with depressed glomerular filtration, acidosis, alkalosis or hypoproteinemia, Lasix has been found effective and well tolerated.⁵ If increasing azotemia and oliguria occur during treatment of severe progressive renal disease, the drug should be discontinued.

(See next page for prescribing information.)

References: 1. Peltola, P.: Furosemide (Lasix®) as a diuretic, *Acta Medica Scandinavica*, 177:6, 1965. 2. Mudge, G.H., in Goodman, L.S. and Gilman, A. (eds.), *The Pharmacological Basis of Therapeutics*, 4th ed., 1970, p. 852. 3. Manner, R.J., Brechbill, D.O., and DeWitt, Karen: Prevalence of hypokalemia in diuretic therapy, *Clin. Med.* 79:19, November 1972. 4. Schrier, R.W., et al.: Effect of furosemide on free water excretion in edematous patients with hyponatremia, *Kidney Int.* 3:30, 1973. 5. Muth, R.G.: Diuretic response to furosemide in the presence of renal insufficiency, *J.A.M.A.* 195:1066, March 1966.

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for maintenance therapy





LASIX[®] 40mg and 20mg tablets. (FUROSEMIDE)

logical long-term diuretic therapy for cardiac edema

A brief summary of the Prescribing Information for
Lasix[®] (furosemide) Tablets 20 mg and 40 mg

WARNING—Lasix (furosemide) is a potent diuretic which if given in excessive amounts can lead to a profound diuresis with water and electrolyte depletion. Therefore, careful medical supervision is required, and dose and dose schedule have to be adjusted to the individual patient's needs. (See under "Dosage and Administration.")

Indications—Lasix (furosemide) is indicated for the treatment of the edema associated with congestive heart failure, cirrhosis of the liver, and renal disease, including the nephrotic syndrome.

Hypertension—Lasix (furosemide) may be used for the treatment of hypertension alone or in combination with other antihypertensive drugs. Hypertensive patients who cannot be adequately controlled with thiazides will probably also not be adequately controllable with Lasix (furosemide) alone.

CONTRAINDICATIONS—Because animal reproductive studies have shown that Lasix (furosemide) may cause fetal abnormalities, the drug is contraindicated in women of childbearing potential. (See "Additional Information.")

Lasix (furosemide) is contraindicated in anuria. If increasing azotemia and oliguria occur during treatment of severe progressive renal disease, the drug should be discontinued. In hepatic coma and in states of electrolyte depletion, therapy should not be instituted until the basic condition is improved or corrected. Lasix (furosemide) is contraindicated in patients with a history of hypersensitivity to this compound.

Warnings—Excessive diuresis may result in dehydration and reduction in blood volume, with circulatory collapse and with the possibility of vascular thrombosis and embolism, particularly in elderly patients. Excessive loss of potassium in patients receiving digitalis glycosides may precipitate digitalis toxicity. Care should also be exercised in patients receiving potassium depleting steroids.

Frequent serum electrolyte, CO₂ and BUN determinations should be performed during the first few months of therapy and periodically thereafter, and abnormalities corrected or the drug temporarily withdrawn.

In patients with hepatic cirrhosis and ascites, initiation of therapy with Lasix (furosemide) is best carried out in the hospital. Sudden alterations of fluid and electrolyte balance in patients with cirrhosis may precipitate hepatic coma; therefore, strict observation is necessary during the period of diuresis. Supplemental potassium chloride and, if required, an aldosterone antagonist are helpful in preventing hypokalemia and metabolic alkalosis.

Patients should be observed regularly for the possible occurrence of blood dyscrasias, liver damage, or other idiosyncratic reactions.

In those instances where potassium supplementation is required, an oral liquid preparation should be used rather than enteric-coated potassium salts.

There have been several reports, published and unpublished, concerning nonspecific small-bowel lesions consisting of stenosis, with or without ulceration, associated with the administration of enteric-coated thiazides with potassium salts. These lesions may occur with enteric-coated potassium tablets alone or when they are used with nonenteric-coated thiazides, or certain other oral diuretics.

These small-bowel lesions have caused obstruction, hemorrhage, and perforation. Surgery was frequently required, and deaths have occurred.

Available information tends to implicate enteric-coated potassium salts, although lesions of this type also occur spontaneously. Therefore, coated potassium-containing formulations should be administered only when indicated and should be discontinued immediately if abdominal pain, distention, nausea, vomiting, or gastrointestinal bleeding occurs.

Patients with known sulfonamide sensitivity may show allergic reactions to Lasix (furosemide).

Precautions—As with any potent diuretic, electrolyte depletion may occur during therapy with Lasix (furosemide), especially in patients receiving higher doses and a restricted salt intake. Electrolyte depletion may manifest itself by weakness, dizziness, lethargy, leg cramps, anorexia, vomiting, and/or mental confusion.

Asymptomatic hyperuricemia can occur and gout may rarely be precipitated. Reversible elevations of BUN may be seen. These have been observed in association with dehydration, which should be avoided, particularly in patients with renal insufficiency.

When parenteral use of Lasix (furosemide) precedes its oral use, it should be kept in mind that cases of tinnitus and reversible hearing impairment have been reported. There have also been some reports of cases in which irreversible hearing impairment occurred. Usually, ototoxicity has been reported when Lasix (furosemide) was injected rapidly in patients with severe impairment of renal function at doses exceeding several times the usual recommended dose and in whom other drugs known to be ototoxic were often given. If the physician elects to use high dose parenteral therapy in patients with severely impaired renal function, controlled intravenous infusion is advisable (for adults, it has been reported that an infusion rate not exceeding 4 mg Lasix [furosemide] per minute has been used).

Increases in blood glucose, and alterations in glucose tolerance tests with abnormalities of the fasting and two-hour postprandial sugar have been observed, and rare cases of precipitation of diabetes mellitus have been reported.

Lasix (furosemide) may lower serum calcium levels, and rare cases of tetany have been reported.

Patients receiving high doses of salicylates, in conjunction with Lasix (furosemide) may experience salicylate toxicity at lower doses because of competitive renal excretory sites.

Diuretics such as furosemide may enhance the nephrotoxicity of cephaloridine. Therefore, Lasix (furosemide) and cephaloridine should not be administered simultaneously.

Sulfonamide diuretics have been reported to decrease arterial responsiveness to pressor amines and to enhance the effect of tubocurarine. Great caution should be exercised in administering curare or its derivatives to patients undergoing therapy with Lasix (furosemide), and it is

advisable to discontinue Lasix (furosemide) for one week prior to any elective surgery.

Adverse Reactions—Various forms of dermatitis, including urticaria and rare forms of exfoliative dermatitis, erythema multiforme, pruritus, paresthesia, blurring of vision, postural hypotension, nausea, vomiting, or diarrhea.

Anemia, leukopenia, aplastic anemia, and thrombocytopenia (with purpura). Rare cases of agranulocytosis which responded to treatment.

In addition, the following rare adverse reactions have been reported however, relationship to the drug has not been established with certainty: sweet taste, oral and gastric burning, paradoxical swelling, headache, jaundice, thrombophlebitis and emboli and acute pancreatitis.

Lasix (furosemide)-induced diuresis may be accompanied by weakness, fatigue, lightheadedness or dizziness, muscle cramps, thirst, increased perspiration, urinary bladder spasm, and symptoms of urinary frequency.

Dosage and Administration ADULTS

The usual adult dose of Lasix (furosemide) is 20 to 80 mg given as a single dose.

If the diuretic response with a single dose of 20 to 80 mg is not satisfactory, the following schedule should be used: Increase this dose by increments of 20 or 40 mg not sooner than 6 to 8 hours after the previous dose until the desired diuretic effect has been obtained. This individually determined single dose should then be given once or twice daily. The dose of Lasix (furosemide) may be carefully titrated up to 600 mg per day in those patients with severe clinical edematous states.

With doses exceeding 80 mg/day and given for prolonged periods, careful clinical and laboratory observations are particularly advisable.

Hypertension—The usual dose of Lasix (furosemide) is 40 mg twice daily both for initiation of therapy and for maintenance. Careful observations for changes in blood pressure must be made when this compound is used with other antihypertensive drugs, especially during initial therapy. The dosage of other agents must be reduced by at least 50 percent as soon as Lasix (furosemide) is added to the regimen to prevent excessive drop in blood pressure. As the blood pressure falls under the potentiating effect of Lasix (furosemide), a further reduction in dosage, or even discontinuation, of other antihypertensive drugs may be necessary. It is further recommended, if 40 mg twice daily does not lead to a clinically satisfactory response, to add other hypotensive agents, e.g., reserpine, rather than to increase the dose of Lasix (furosemide).

INFANTS AND CHILDREN

Pediatric Administration: The usual initial dose of oral Lasix in infants and children is 2 mg/kg body weight, given as a single dose. If the diuretic response is not satisfactory after the initial dose, dosage may be increased by 1 or 2 mg/kg not sooner than 6 to 8 hours after the previous dose. Doses greater than 6 mg/kg body weight are not recommended.

For maintenance therapy in infants and children, the dose should be adjusted to the minimum effective level.

How Supplied—Lasix Tablets 40 mg (furosemide) supplied as white, round, monogrammed, scored tablets.

Lasix Tablets 20 mg (furosemide) supplied as white, oval, monogrammed tablets.

Note: Dispense in dark containers. Exposure to light may cause slight discoloration which, however, does not alter potency.

Additional Information

Toxicology

The acute toxicity of Lasix (furosemide) has been determined in mice, rats, and dogs. In all three animal species, the oral LD₅₀ of Lasix (furosemide) exceeded 1000 mg/kg of body weight, while the intravenous LD₅₀ ranged from 300 to 680 mg/kg. Intragastric injection of the drug in newborn rats resulted in an LD₅₀ of 380 mg/kg.

The acute toxicity of high doses of Lasix (furosemide) was characterized by convulsions, paralysis, and collapse. Surviving animals often became dehydrated and depleted of electrolytes due to the diuresis induced by Lasix (furosemide). In the newborn rats, intragastric injection of the drug caused hyperactivity and anorexia.

Chronic toxicity studies with Lasix (furosemide) were done in rats and dogs. In a one-year study in rats, renal tubular degeneration occurred, with all doses higher than 50 mg/kg (4 times the maximal recommended human dose of 600 mg per day). A six-month study in dogs revealed calcification and scarring of the renal parenchyma at all doses above 10 mg/kg (83 percent of the maximal recommended human dose of 600 mg per day).

Reproductive Studies

The effects of Lasix (furosemide) on embryonic and fetal development and on pregnant dams were studied in mice, rats, and rabbits.

Lasix (furosemide) caused unexplained maternal deaths and abortions in the rabbit when 50 mg/kg (4 times the maximal recommended human dose of 600 mg per day) was administered between days 12 to 17 of gestation. In a previous study the lowest dose of only 25 mg/kg (2 times the maximal recommended human dose of 600 mg per day) caused maternal deaths and abortions. In a third study, none of the pregnant rabbits survived a dose of 100 mg/kg. Data from the above studies indicate fetal lethality which can precede maternal deaths.

The results of the mouse study and one of the three rabbit studies also showed an increased incidence of hydronephrosis (distention of the renal pelvis and, in some cases, of the ureters) in fetuses derived from treated dams as compared to the incidence in fetuses from the control group.



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Elliott Farberman, M.D., 3220 Parker Rd., Florissant 63033, has become a member of St. Louis Medical Society. Dr. Farberman is a native of New York, received his preliminary education at the University of Rochester and his M.D. degree at St. Louis University in 1973. He specializes in pediatrics.

Joseph R. Guastello, M.D., 514 Medical Plaza, 4320 Wornall Rd., Kansas City 65111, has become a member of Jackson County Medical Society. Dr. Guastello is a native of Kansas City, received his preliminary education at the University of Missouri and his M.D. at the University of Missouri in 1971. He specializes in otolaryngology.

E. Philip Gutek, M.D., 4177 Broadway, Kansas City 64111, has become a member of Jackson County Medical Society. Dr. Gutek is a native of Wadena, Saskatchewan, Canada, received his preliminary education at the University of Saskatchewan and his M.D. at the University of Saskatchewan in 1967. He specializes in plastic surgery.

Bruce H. Hahn, M.D., 615 West 3rd, Lee's Summit 64063, has become a member of Jackson County Medical Society. Dr. Hahn received his M.D. degree at Baylor College in 1969. He specializes in general surgery.

Greg L. Hartman, M.D., 4320 Wornall Rd., Kansas City 64111, has become a member of Jackson County Medical Society. Dr. Hartman is a native of Kansas City, received his preliminary education at Southwestern College and his M.D. degree at Kansas University in 1973. He specializes in internal medicine.

Joseph Hazan, M.D., 2428 Woodson Rd., St. Louis 63114, has become a member of St. Louis Medical Society. Dr. Hazan is a native of Turkey, received his preliminary education at EGE University and his M.D. degree at EGE University in 1971. He specializes in obstetrics and gynecology.

Frederick R. Kennedy, M.D., 4320 Wornall Rd., Kansas City 64111, has become a member of Jackson County Medical Society. Dr. Kennedy is a native of Kansas City, received his preliminary education at the University of Kansas and his M.D. degree at the University of Kansas in 1968. He specializes in general surgery.

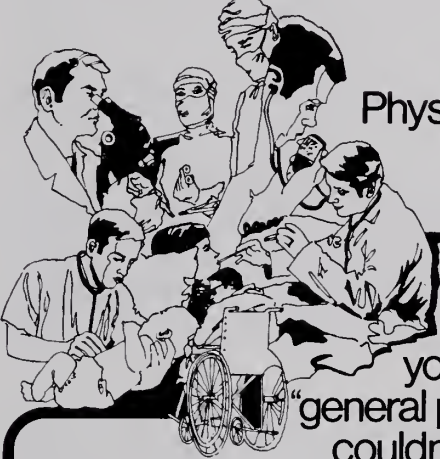
Robert E. Kraetsch, M.D., 1034 S. Brentwood, St. Louis 63117, has become a member of St. Louis Medical Society. Dr. Kraetsch is a native of Illinois, received his preliminary education at the University

of Illinois and his M.D. degree at Washington University in 1969. He specializes in internal medicine-hematology.

Stephen R. Kunz, M.D., 44th and Wornall Rd., Kansas City 64111, has become a member of Jackson County Medical Society. Dr. Kunz is a native of Kansas City, received his preliminary education at Princeton University and his M.D. degree at Kansas University in 1974. He specializes in radiology.

Stephen L. Liston, M.D., 24th and Cherry, Kansas City 64108, has become a member of Jackson County Medical Society. Dr. Liston is a native of Australia. He received his M.D. degree at the University of Melbourne in 1964. He specializes in otolaryngology.

Michael McCarty, M.D., 216 S. Kingshighway, St. Louis 63110, has become a member of St. Louis Medical Society. Dr. McCarty is a native of Minnesota, received his preliminary education at Washington University and his M.D. degree at Washington University in 1973. He specializes in pathology.



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Damon William Mountford, M.D., 6137 Blue Ridge Blvd., Raytown 64133, has become a member of Jackson County Medical Society. Dr. Mountford is a native of Coffeyville, Kan., received his preliminary education at the University of Kansas and the University of Iowa and his M.D. degree from the University of Missouri in 1973. He is in general practice.

Stephen L. O'Keefe, M.D., Columbia, has become a member of Boone County Medical Society. Dr. O'Keefe is a native of Centralia, Ill., received his preliminary education at the University of Illinois and his M.D. degree at the University of Missouri in 1972. He specializes in internal medicine and hematology.

Charles L. Puckett, M.D., 807 Stadium, Columbia 65201, has become a member of Boone County Medical Society. Dr. Puckett is a native of Burlington, N. C., received his preliminary education at Elon College and his M.D. degree at Bowman Gray School of Medicine in 1966. He specializes in plastic and reconstructive surgery.

Robert Scheible, M.D., 2821 N. New Ballas Rd., St. Louis 63141, has become a member of St. Louis Medical Society. Dr. Scheible is a native of Minnesota, received his preliminary education at Johns Hopkins University and his M.D. degree at Washington University in 1972. He specializes in radiology.

Paul S. Simons, M.D., 4570 Audubon, St. Louis 63110, has become a member of the St. Louis County Medical Society. Dr. Simons is a native of Brooklyn, N. Y., received his preliminary education at the University of Texas and his M.D. degree at Washington University in 1967. He specializes in pediatrics.

Michael R. Soper, M.D., 605 W. 47th, Kansas City 64112, has become a member of Jackson County Medical Society. Dr. Soper is a native of Independence, received his preliminary education at Harvard College and his M.D. degree at Harvard Medical School in 1968. He specializes in internal medicine.

Edward W. Szoko, M.D., 1225 Graham Rd., Florissant 63031, has become a member of St. Louis Medical Society. Dr. Szoko is a native of New York, received his preliminary education at the University of Missouri and his M.D. degree at the University of Missouri in 1972. He specializes in internal medicine.

Stanley E. Thawley, M.D., Barnes Hospital Plaza, St. Louis 63110, has become a member of St. Louis Medical Society. Dr. Thawley is a native of Texas, received his preliminary education at the University of Texas and his M.D. degree at the University of Texas in 1967. He specializes in otorhinolaryngology.

Lewis C. Vollmar, M.D., Ste. Genevieve 63670, has become a member of St. Louis County Medical Society. Dr. Vollmar is a native of St. Louis, received his preliminary education at Washington University and his M.D. degree at the University of Missouri in 1972. He specializes in dermatology.

Linley E. Watson, M.D., 800 Stadium Rd., Columbia 65201, has become a member of Boone County Medical Society. Dr. Watson is a native of Texas, received his preliminary education at the University of Kansas and his M.D. degree at the University of Kansas in 1966. He specializes in cardiology.

Eugene Wienke, M.D., 2821 N. Ballas Rd., St. Louis 63131, has become a member of St. Louis Medical Society. Dr. Wienke is a native of Missouri, received his preliminary education at St. Louis University and his M.D. degree at the University of Missouri in 1968. He specializes in pathology.

Ashley S. Zack, M.D., 24th & Gillham, Kansas City 64108, has become a member of Jackson County Medical Society. Dr. Zack is a native of St. Louis, received his preliminary education at the University of Missouri and his M.D. degree at the University of Missouri in 1973. He specializes in pediatrics.



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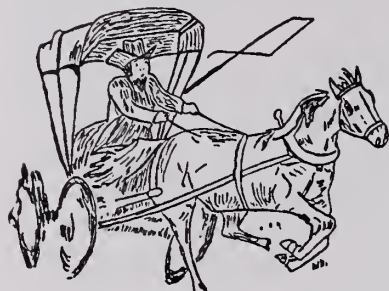
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Missouri Medicine in Review



FORTY YEARS AGO

The American Board of Internal Medicine, which was incorporated on Feb. 28, 1936, completed its organization on June 15, 1936. The Board was organized by the American College of Physicians in conjunction with the Section on Practice of Medicine of the American Medical Association, and those two organizations are represented in the membership of the Board.

The purpose of the Board is to certify specialists in the field of internal medicine and to establish qualifications with the required examination procedure for such certification. The first written examination will be held in December, 1936. Candidates who are successful in this written test will be eligible for the first practical or clinical examination.

The chairman is Dr. Walter L. Bierring of Des Moines, Ia. Dr. Jonathan C. Meakins, Montreal, is vice-chairman and Dr. R. C. Dr. O. H. Perry Pepper, Philadelphia, is secretary-treasurer. Members of the Board are Drs. David P. Barr, St. Louis; Reginald Fitz, Boston; Ernest E. Irons, Chicago; Williams S. Middleton, Madison; John H. Musser, New Orleans; and G. Gill Richards, Salt Lake City.

TWENTY-FIVE YEARS AGO

"At an organizational meeting at the Strand Hotel in Chillicothe on Thursday night, September 20, a new hyphenated society composed of physicians from seven counties is scheduled to be born. The societies involved are Caldwell-Livingston, Grundy-Daviess, Harrison, Linn and Mercer. A committee from this group is now drawing up a proposed constitution and bylaws and is searching for a suitable name and all are to be submitted for consideration

and action by members of the aforementioned societies.

"C. Edgar Virden, M.D., Kansas City, President of the Missouri State Medical Association; H. E. Peterson, M.D., St. Joseph, Secretary; Victor Buhler, M.D., Kansas City, Chairman of the MSMA Council; Donald M. Dowell, M.D., Chillicothe, Councilor for the First District, and other Medical Association officers plan to be present at this important occasion."

The South Central Counties Medical Society met on July 19 for a picnic at the summer camp of Dr. C. W. Cooper which is located south of Thayer on the Spring River in Arkansas. The following members and their wives were present: Drs. R. W. Denney, H. G. Frame, S. W. Connor and A. C. Ames, Mountain Grove; Garrott Hogg, Jr., Cabool; E. C. Bohrer and C. F. Callihan, West Plains; C. W. Cooper, Thayer; and A. F. Walker, Mammoth Springs, Ark.

TEN YEARS AGO

John T. Logue, M.D. of Columbia writes:

"When you have finished your stay here and you do go back, please tell the people of your country and your government that your flag and ours were entwined together in friendship and in honor and that you achieved a victory more significant and glorious than those reaped in wars and more lasting because it did not destroy but, instead, built upon the foundation of human dignity."

The above words were spoken by Augusto Oviedo Reyes, Bishop of Leon, to the medical staff of the S.S. Hope. They express the ideals, the goals and the attainments of the Nicaraguan mission of the S.S. Hope in 1966 and serve as the creed for Nicaraguan and American alike to follow.

The St. Louis University School of Medicine has received a grant of \$250,000 from the W. K. Kellogg Foundation. The grant provides for the nonpolicy-making administrative affairs and for the addition of a student affairs officer to help Dr. Donald W. Bussmann, assistant dean.

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Indications: Relief of anxiety and tension occurring alone or accompanying various disease states.

Contraindications: Patients with known hypersensitivity to the drug.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. As with all CNS-acting drugs, caution patients against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving). Though physical and psychological dependence have rarely been reported on recommended doses, use caution in administering to addiction-prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions), following discontinuation of the drug and similar to those seen with barbiturates, have been reported. Use of any drug in pregnancy, lactation, or in women of childbearing age requires that its potential benefits be weighed against its possible hazards.

Precautions: In the elderly and debilitated, and in children over six, limit to smallest effective dosage (initially 10 mg or less per day) to preclude ataxia or oversedation, increasing gradually as needed and tolerated. Not recommended in children under six. Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider individual pharmacologic effects, particularly in use of potentiating drugs such as MAO inhibitors and phenothiazines. Observe



usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions (e.g., excitement, stimulation and acute rage) have been reported in psychiatric patients and hyperactive aggressive children. Employ usual precautions in treatment of anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation have been reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship has not been established clinically.

Adverse Reactions: Drowsiness, ataxia and confusion may occur, especially in the elderly and debilitated. These are reversible

in most instances by proper dosage adjustment, but are also occasionally observed at the lower dosage ranges. In a few instances syncope has been reported. Also encountered are isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent and generally controlled with dosage reduction; changes in EEG patterns (low-voltage fast activity) may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice and hepatic dysfunction have been reported occasionally, making periodic blood counts and liver function tests advisable during protracted therapy.

Usual Daily Dosage: Individualize for maximum beneficial effects. *Oral—Adults:* Mild and moderate anxiety and tension, 5 or 10 mg *t.i.d.* or *q.i.d.*; severe states, 20 or 25 mg *t.i.d.* or *q.i.d.* *Geriatric patients:* 5 mg *b.i.d.* to *q.i.d.* (See Precautions.)

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Missouri Medicine

JOURNAL OF THE MISSOURI STATE MEDICAL ASSOCIATION



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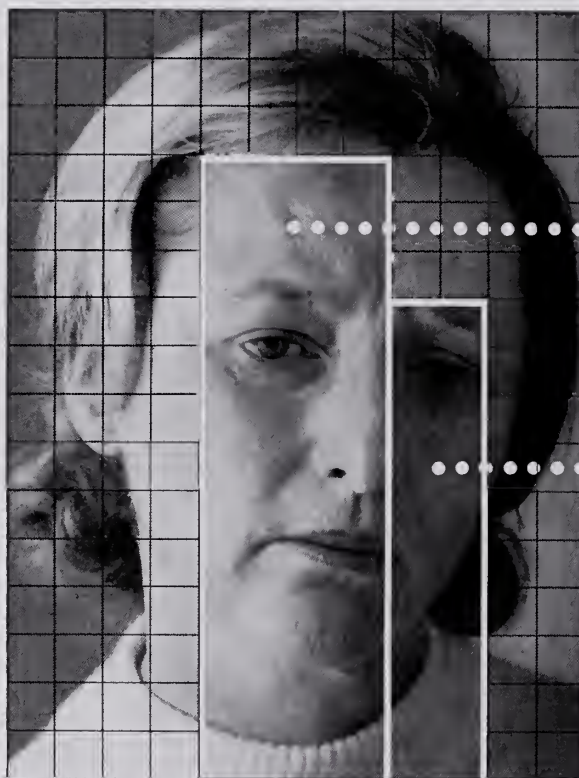
Special

- OFFICIAL DELEGATES, MSMA Interim Session 548

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MSMA Interim Session
Nov. 3-4, 1976, Lake of the Ozarks

Both after



Predominant
psychoneurotic
anxiety

Associated
depressive
symptoms

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Tension and anxiety states; somatic complaints which are concomitants of emotional factors; psychoneurotic states manifested by tension, anxiety, apprehension, fatigue, depressive symptoms or agitation; symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in skeletal muscle spasm due to reflex spasm to local pathology, spasticity caused by upper motor

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Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma; may be used in patients with open angle glaucoma who are receiving appropriate therapy.

Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive dis-

orders, possibility of increase in frequency and/or severity of grand mal seizure may require increased dosage of standard anticonvulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms (similar to those with barbiturates and alcohol) may occur following abrupt discontinuation (convulsions, tremor, abdominal and muscle cramps, vomiting and sweating) especially in addiction-prone individuals under careful

respond to one

According to her major symptoms, she is a psychoneurotic patient with severe anxiety. But according to the description she gives of her feelings, part of the problem sounds like depression. It is because her problem, though primarily one of excessive anxiety, is often accompanied by depressive symptoms. Valium (diazepam) provides relief for both—excessive anxiety is reduced, the depressive symptoms associated with it are also relieved.

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(diazepam) [Ⓢ]

2-mg, 5-mg, 10-mg scored tablets

in psychoneurotic
anxiety states
with associated
depressive symptoms

illiance because of their predisposition to habituation and dependence. In pregnancy, lactation or women of childbearing age, weigh potential benefit against possible hazard.

Precautions: If combined with other psychotropics or anticonvulsants, consider fully pharmacology of agents employed; drugs such as phenothiazines, barbiturates, MAO inhibitors, other antidepressants may potentiate sedation. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies.

Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle

spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.



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Missouri Medicine

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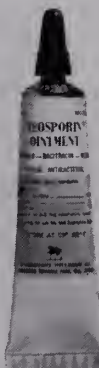
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Prophylactically, the ointment may be used to prevent bacterial contamination in burns, skin grafts, incisions, and other clean lesions. For abrasions, minor cuts and wounds accidentally incurred, its use may prevent the development of infection and permit wound healing. **CONTRAINDICATIONS:** Not for use in the eyes or external ear canal if the eardrum is perforated. This product is contraindicated in those individuals who have shown hypersensitivity to any of the components.

WARNING: Because of the potential hazard of nephrotoxicity and ototoxicity due to



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Complete literature available on request from Professional Services Dept. PML.



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NEWS

ROUND - UP

October, 1976

Council adopts countersuit measure

The MSMA Council met Sept. 24-25 in Springfield to consider several items of interest to physicians in Missouri.

The Council adopted a resolution implementing the MSMA's intentions to assist members in meritorious malpractice countersuits. To underwrite the expenses of this program a dues increase (or special assessment) is anticipated. This subject will come before the MSMA House of Delegates at the Interim Session, Nov. 3-4, 1976.

Most other Council actions dealt with reports of Committees and Commissions. The Council:

- Agreed to underwrite a signature loan of no more than \$10,000 for startup funds for the Missouri Health Data Corporation. This private corporation will be the collection agency in the state of all health care data emanating from hospitals and other health care facilities.

- Announced the nominations of Dr. Robert E. Bregant, Jefferson City, to represent the MSMA on the Statewide Health Coordinating Council for HSA's and Dr. Richard V. Bradley, St. Louis, to represent the MSMA on the Statewide Professional Standards Review Council.

- Heard a report from the Missouri State Medical Insurance, Inc., that the company now insures 755 Missouri physicians.

- Accepted a report from the Committee on Continuing Education which stated that the MSMA has accredited eight hospitals and organizations as sponsors for CME activities. The eight are Trinity Lutheran Hospital, Kansas City; St. John's Medical Center, St. Louis; Ellis Fischel State Cancer Hospital and Cancer Research Center, Columbia; Missouri State Allergy Association, Inc., Kansas City; Academy of Health Professions, Kansas City; Freeman Hospital, Joplin; Southeast Foundation for Medical Care, Inc., Cape Girardeau and Doctor's Hospital, Poplar Bluff.

- Was informed by Dr. Clem B. Grebel, the MSMA representative to the Missouri PSRO Support Center, that due to lack of continued federal funding, the Support Center ceased operations effective October 1, 1976.

- Voted against an AMA Board of Trustees proposal which would allow the AMA to bill members direct, rather than going through the state and local medical societies.

- Accepted reports of the Commission on Medical Economics and the Commission on Interspecialty Medicine.

- Heard the actions taken during a meeting of the Conjoint Medicaid Fee Committee. This committee of MSMA and Missouri Osteopathic Association members has recommended that payments for physicians' services under the Medicaid system be increased to more acceptable sums and is currently working with the Missouri Division of Family Services to arrive at acceptable figures.

- Listened to a report from the President of the MSMA Auxiliary which detailed the Auxiliary's upcoming Fall Conference to be held in Jefferson City, Oct. 20-21.

- Reviewed a listing of the dues structure of the 50 State Medical Associations. As of Jan. 1, 1977, the MSMA will rank 49th in amount of dues required.

Mayaland sea cruise planned for Feb. 8-20

MSMA members, their families and friends are invited to participate in an unusual travel seminar program, "The Mayaland and Western Caribbean Islands" air-sea cruise, from Feb. 8 to Feb. 20, 1977. A special itinerary covering the richest archaeological regions in the Americas, combined with stops at secluded islands on board the fine cruise ship, "The Renaissance," make this program unique.

Following flights from Kansas City and St. Louis, participants will sail from Port Everglades, Fla., the evening of Feb. 8. Ports to be visited along the way include Port-au-Prince, Montego Bay, Grand Cayman, Santa Tomas de Castilla, Puerto Cortez, Cozumel and Playa del Carmen.

A continuing medical education seminar, "Surgical Ambulatory Care — Office Practice & Procedures," will be conducted during the tour. The seminar meets the criteria for 28 hours of Category 2 credit for the Physician's Recognition Award of the AMA.

All MSMA members have received a mailing from the Missouri State Medical Insurance, Inc., detailing the tour. However, if you desire further information, write to "Mayaland Tour," MSMI, P.O. Box 1028, Jefferson City, Mo. 65101.

Missouri Medical graduates increase by 50% since 1970

The number of medical students graduating from medical schools in Missouri increased by more than 50% from 1970 to 1976.

Figures from the four medical schools in the state revealed that 264 medical students graduated in 1970 compared to a total of 400 medical graduates in 1976. This is an increase of more than 51%. The 1976 graduate figure was eight more than 1975's graduating class of 392 students.

The trend of increasing number of medical graduates should continue according to university statistics. Currently, there are 2,007 students enrolled in the various classes in Missouri's four schools. In 1970, only 1,321 students were enrolled. Again, this is an increase of about 51%.

Much of the increase is due to the fact that the University of Missouri-Kansas City School of Medicine was just getting started in 1970 with 18 students admitted to the Year 1 of its six-year program.

The number of graduating students from each medical school in 1976 is listed below (number of graduates in 1970 is in parentheses):

Washington University School of Medicine: 138 (87); St. Louis University School of Medicine: 136 (101); University of Missouri-Columbia School of Medicine: 100 (76); University of Missouri-Kansas City School of Medicine: 26 (0).

Resolutions Readied For Interim Session

Final plans are being made for the first Interim Session of the Missouri State Medical Association's House of Delegates, Nov. 3-4, 1976, at Tan-Tar-A on the Lake of the Ozarks.

Several Resolutions dealing with state and national legislation have already been proposed for consideration at the Session. These include Resolutions on Medicaid, national relicensure of physicians, and, in the area of malpractice, Resolutions on structured award, local expert witnesses and collateral sources. More Resolutions are expected as the Session date nears. The deadline for submitting Resolutions to the MSMA Headquarters is October 13. Delegates will receive a Handbook prior to the meeting.

The Interim Session will deal solely with actions on legislation by the House of Delegates. There will not be scientific sessions or technical exhibits. However, all MSMA members are invited to attend the Interim Session to observe actions of the House and to testify before the Reference Committees.

A Reservation Card for Tan-Tar-A was published in the September issue of MISSOURI MEDICINE. Mail the Reservation Card to: Reservations, Tan-Tar-A Resort, Osage Beach, Missouri 65605. A deposit of \$30 must accompany your Reservation Card to the resort. Those Delegates and members attending the Session are again reminded that Tan-Tar-A will NOT accept credit cards, but WILL accept personal checks.

The Interim Session will begin with Delegates Registration at 11 a.m., Wednesday, Nov. 3. The Opening Session of the House will be at 2:30 p.m., Wednesday. Following adjournment, Reference Committees will hear testimony on the various Resolutions and will issue reports prior to the Second Session of the House on Thursday morning.

The Second Session will begin with a breakfast from 7 to 8:30 a.m. This will be followed immediately by House action on the reports of the Reference Committees.

Swine Flu Program is 'Go'

The Swine Flu Program is "go" in Missouri!

The first shipment of vaccine arrived in the state October 1 and was immediately distributed to District and County Health Offices across the state. The first shipment included 110,000 doses of bivalent and 210,000 doses of monovalent. The bivalent is to be used for persons 65 and older and younger adults and children who are considered high-risk cases. The monovalent is to be given to the general population.

The Division of Health last week sent out its "Progress Report" to all Missouri physicians detailing the recommended dosage and providing examples of the required informed consent forms and benefits/risk forms which must be provided to all persons getting the immunization.

The Division will furnish physicians copies of these forms plus a number of "Weekly Tally Sheets" upon which physicians are expected to keep track of the immunizations they give by age group and type of vaccine. These forms are mailed to the Division so that totals can be gained on the number of vaccinations given in each area of the state.

MSMA members are again reminded that patients MUST sign an informed consent form and there can be

NO CHARGE of any kind if the physician desires to stay under the immunity provided by the Federal Swine Flu Liability Law passed by Congress. If these provisions are not completely complied with by the physician, he must depend on liability coverage by his private carrier.

There is a provision that "donations" may be accepted, but this aspect is expected to undergo close government scrutiny and physicians or local medical societies should check with the District Health officials or their attorney before proceeding in this area.

As mentioned here several times the past few months, the Missouri Swine Flu Program is being coordinated by public health officials. However, these officials need the cooperation of local medical societies and private physicians to carry out a program of this scope. If you have questions regarding the project contact your District or County Health Officer or the State Division of Health at 800-392-8269.

MSMA Headquarters will also attempt to gain further information for those members who call or write to MSMA, P.O. Box 1028, Jefferson City, Mo. 65101.

Board proposes change For Temporary licensees

Authorization for a temporary licensed physician to prescribe certain drugs was proposed by the Board of Healing Arts in the Aug. 2, 1976, edition of the Missouri Register. The MSMA House of Delegates passed a resolution last spring requesting the Board to establish such rules.

The Board stated in proposing the amendment to the licensing act that it would establish guidelines for temporary licensees in AMA/AOA approved training programs for the prescribing of legend drugs, including controlled substances. The need for the measure has been evidenced by recent federal legislation that has caused many commonly prescribed medications to fall under controlled substance classifications.

As a result, the individual physician in a training program is hampered in being able to extend appropriate medication to patients that he sees in connection with his assigned duties. This regulation would serve to authorize temporary licensees to seek from the Bureau of Narcotics and Dangerous Drugs the authority upon which to prescribe these medications.

The proposed regulation reads as follows:

"The holder of a temporary license issued by The State Board of Registration for the Healing Arts may be authorized to prescribe legend drugs, including controlled substances for those patients cared for within the framework of the AMA/AOA approved training program in which he or she is enrolled. The institution's DEA number, with a distinguishing suffix approved by the Bureau of Narcotics and Dangerous Drugs of the State of Missouri, shall be used by the temporary licensee to demonstrate this authority."

Dr. Whittico elected as Board President

James M. Whittico, M.D., a St. Louis surgeon, has been elected president of the Missouri State Board of Registration for the Healing Arts.

Whittico, a surgeon in private practice, is also associate clinical professor of surgery at St. Louis University. He is a former president of the National Medical Association.

Whittico was appointed to the board in August, 1975, by Gov. Christopher S. Bond.

Also at the board's meeting last month in Sikeston, Robert L. Schoenen, D.O., of Jefferson City was elected secretary of the group. He was appointed to the board in April, 1975.

Officers are elected for one-year terms by other members of the seven-member regulatory board, an agency of the Department of Consumer Affairs.

Other members of the Board are: John N. Martin, M.D., St. Joseph; John P. Ferguson, M.D., Springfield; Joseph C. Blanton, M.D., Sikeston; Joseph S. Cope, M.D., Lexington and Lee E. Davidson, D.O., Kansas City.

In other actions taken by the Board, two physicians' licenses to practice medicine in Missouri were revoked. Also, the Board adopted a Medical Practice Act Familiarization Test which will be sent to physicians submitting applications to practice in the State.

The Board has the job of examining licenses and disciplining physicians and surgeons in Missouri. All the board members are physicians. Board membership is a nonpaying post.

Regional Medical Program ceases operations

The Missouri Regional Medical Program officially ceased operations on September 30. The program's funding was dropped due to expected takeover of functions under the direction of the Health Systems Agencies established by the National Health Planning and Development Act.

Headquarters for the Missouri Kidney Program will remain in Lewis Hall in Columbia with several former MoRMP staff providing continuity in its management. Much of this effort will be to assure effective transition of MoRMP functions and activities to the newly activated HSAs.

Correspondence relating to MoRMP should be directed to: Arthur E. Rikli, M.D., Lewis Hall, 406 Turner, Columbia, Missouri 65201.

MSMA expresses opposition to federal credentialing

The MSMA expressed its official opposition to a Department of Health, Education and Welfare subcommittee report entitled, "A Proposal for Credentialing Health Manpower," in a letter to HEW Secretary F. David Mathews from MSMA President Max S. Franklin.

The proposal calls for the establishment of a national system of licensure criteria for health manpower. Basically, the means of forcing the adoption of such national standards would be the threat of withholding federal payments in health programs.

"Clearly, this proposal usurps the power of individual states in providing for the health of their citizens, a right protected by the Constitution of the United States," said Dr. Franklin.

"In addition," he continued, "the proposal criticizes state professional licensing boards when, in fact, state Legislatures throughout the country are working with licensing boards to bolster the policing powers of the boards. Apparently, the Subcommittee overlooked the important movement toward strengthening the professional boards, a move which has received strong support from the private medical community."

In prior communications from Dr. Theodore Cooper, Assistant Secretary for Health, the HEW official also expressed his opposition to any proposal for federal licensure of medical personnel.

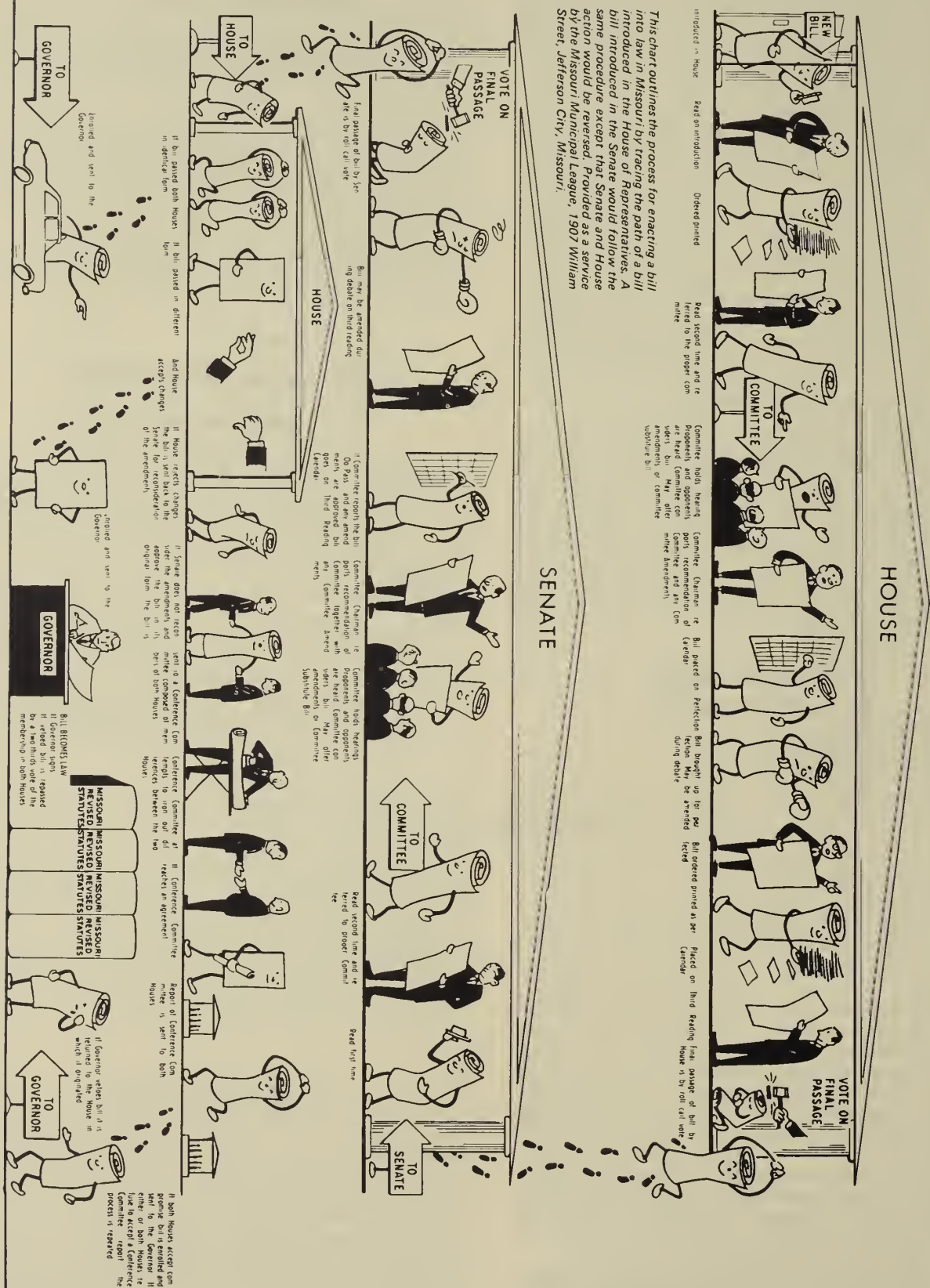
Dr. Bonney named

Dr. Samuel C. Bonney, of Washington, has been named to the Governor's Task Force on Emergency Services by Gov. Christopher Bond.

Dr. Bonney succeeds Dr. Allen P. Klippel, of St. Louis, who resigned. Dr. Klippel has long been active in the area of emergency medical services.

Dr. Bonney is director of Emergency Services of St. Louis University Hospital. He is a member of the faculty of Washington University School of Medicine and a consultant in surgery and director of emergency medical services at St. Louis Hospital.

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MISSOURI STATE MEDICAL ASSOCIATION

INTERIM SESSION

November 3-4, 1976
Tan-Tar-A Resort, Lake of the Ozarks

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For Reservations . . .

A Reservation Card for Tan-Tar-A was published in the September issue of MISSOURI MEDICINE. Mail the Reservation Card to: Reservations, Tan-Tar-A Resort, Osage Beach, Missouri 65605. A deposit of \$30 must accompany your Reservation Card to the resort. Those Delegates and members attending the Session are again reminded that Tan-Tar-A will NOT accept credit cards, but WILL accept personal checks.

All MSMA members are invited to attend the INTERIM SESSION

For more information, please see *MSMA News Round-Up* (yellow sheet) between pages 546-547 in this issue of MISSOURI MEDICINE.

Lasix[®] Tablets (furosemide) 20mg and 40mg in hypertension.

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Lasix® Tablets (furosemide) 20 mg and 40 mg in hypertension.

A brief summary of the Prescribing Information for
Lasix® (furosemide) Tablets 20 mg and 40 mg

WARNING—Lasix (furosemide) is a potent diuretic which if given in excessive amounts can lead to a profound diuresis with water and electrolyte depletion. Therefore, careful medical supervision is required, and dose and dose schedule have to be adjusted to the individual patient's needs. (See under "Dosage and Administration.")

Indications—Lasix (furosemide) is indicated for the treatment of the edema associated with congestive heart failure, cirrhosis of the liver, and renal disease, including the nephrotic syndrome.

Hypertension—Lasix (furosemide) may be used for the treatment of hypertension alone or in combination with other antihypertensive drugs. Hypertensive patients who cannot be adequately controlled with thiazides will probably also not be adequately controllable with Lasix (furosemide) alone.

CONTRAINDICATIONS—Because animal reproductive studies have shown that Lasix (furosemide) may cause fetal abnormalities, the drug is contraindicated in women of childbearing potential. (See "Additional Information.")

Lasix (furosemide) is contraindicated in anuria. If increasing azotemia and oliguria occur during treatment of severe progressive renal disease, the drug should be discontinued. In hepatic coma and in states of electrolyte depletion, therapy should not be instituted until the basic condition is improved or corrected. Lasix (furosemide) is contraindicated in patients with a history of hypersensitivity to this compound.

Warnings—Excessive diuresis may result in dehydration and reduction in blood volume, with circulatory collapse and with the possibility of vascular thrombosis and embolism, particularly in elderly patients. Excessive loss of potassium in patients receiving digitalis glycosides may precipitate digitalis toxicity. Care should also be exercised in patients receiving potassium depleting steroids.

Frequent serum electrolyte, CO_2 , and BUN determinations should be performed during the first few months of therapy and periodically thereafter, and abnormalities corrected or the drug temporarily withdrawn.

In patients with hepatic cirrhosis and ascites, initiation of therapy with Lasix (furosemide) is best carried out in the hospital. Sudden alterations of fluid and electrolyte balance in patients with cirrhosis may precipitate hepatic coma; therefore, strict observation is necessary during the period of diuresis. Supplemental potassium chloride and, if required, an aldosterone antagonist are helpful in preventing hypokalemia and metabolic alkalosis.

Patients should be observed regularly for the possible occurrence of blood dyscrasias, liver damage, or other idiosyncratic reactions.

In those instances where potassium supplementation is required, an oral liquid preparation should be used rather than enteric-coated potassium salts.

There have been several reports, published and unpublished, concerning nonspecific small-bowel lesions consisting of stenosis, with or without ulceration, associated with the administration of enteric-coated thiazides with potassium salts. These lesions may occur with enteric-coated potassium tablets alone or when they are used with nonenteric-coated thiazides, or certain other oral diuretics.

These small-bowel lesions have caused obstruction, hemorrhage, and perforation. Surgery was frequently required, and deaths have occurred.

Available information tends to implicate enteric-coated potassium salts, although lesions of this type also occur spontaneously. Therefore, coated potassium-containing formulations should be administered only when indicated and should be discontinued immediately if abdominal pain, distention, nausea, vomiting, or gastrointestinal bleeding occurs.

Patients with known sulfonamide sensitivity may show allergic reactions to Lasix (furosemide).

Precautions—As with any potent diuretic, electrolyte depletion may occur during therapy with Lasix (furosemide), especially in patients receiving higher doses and a restricted salt intake. Electrolyte depletion may manifest itself by weakness, dizziness, lethargy, leg cramps, anorexia, vomiting, and/or mental confusion.

Asymptomatic hyperuricemia can occur and gout may rarely be precipitated. Reversible elevations of BUN may be seen. These have been observed in association with dehydration, which should be avoided, particularly in patients with renal insufficiency.

When parenteral use of Lasix (furosemide) precedes its oral use, it should be kept in mind that cases of tinnitus and reversible hearing impairment have been reported. There have also been some reports of cases in which irreversible hearing impairment occurred. Usually, ototoxicity has been reported when Lasix (furosemide) was injected rapidly in patients with severe impairment of renal function at doses exceeding several times the usual recommended dose and in whom other drugs known to be ototoxic were often given. If the physician elects to use high dose parenteral therapy in patients with severely impaired renal function, controlled intravenous infusion is advisable (for adults, it has been reported that an infusion rate not exceeding 4 mg Lasix [furosemide] per minute has been used).

Increases in blood glucose, and alterations in glucose tolerance tests with abnormalities of the fasting and two-hour postprandial sugar have been observed, and rare cases of precipitation of diabetes mellitus have been reported.

Lasix (furosemide) may lower serum calcium levels, and rare cases of tetany have been reported.

Patients receiving high doses of salicylates, in conjunction with Lasix (furosemide) may experience salicylate toxicity at lower doses because of competitive renal excretory sites.

Diuretics such as furosemide may enhance the nephrotoxicity of cephaloridine. Therefore, Lasix (furosemide) and cephaloridine should not be administered simultaneously.

Sulfonamide diuretics have been reported to decrease arterial responsiveness to pressor amines and to enhance the effect of tubocurarine. Great caution should be exercised in administering curare or its deriva-

tives to patients undergoing therapy with Lasix (furosemide), and it is advisable to discontinue Lasix (furosemide) for one week prior to an elective surgery.

Adverse Reactions—Various forms of dermatitis, including urticar and rare forms of exfoliative dermatitis, erythema multiforme, pruritus, paresthesia, blurring of vision, postural hypotension, nausea, vomiting, diarrhea.

Anemia, leukopenia, aplastic anemia, and thrombocytopenia (with purpura). Rare cases of agranulocytosis which responded to treatment.

In addition, the following rare adverse reactions have been reported, however, relationship to the drug has not been established with certain sweet taste, oral and gastric burning, paradoxical swelling, headache, jaundice, thrombophlebitis and emboli and acute pancreatitis.

Lasix (furosemide)-induced diuresis may be accompanied by weakness, fatigue, lightheadedness or dizziness, muscle cramps, thirst, increased perspiration, urinary bladder spasm, and symptoms of urinary frequency.

Dosage and Administration

ADULTS

The usual adult dose of Lasix (furosemide) is 20 to 80 mg given as single dose.

If the diuretic response with a single dose of 20 to 80 mg is not satisfactory, the following schedule should be used: Increase this dose by increments of 20 or 40 mg not sooner than 6 to 8 hours after the previous dose until the desired diuretic effect has been obtained. This individual determined single dose should then be given once or twice daily. The dose of Lasix (furosemide) may be carefully titrated up to 600 mg per day in those patients with severe clinical edematous states.

With doses exceeding 80 mg/day and given for prolonged period careful clinical and laboratory observations are particularly advisable.

Hypertension—The usual dose of Lasix (furosemide) is 40 mg twice daily both for initiation of therapy and for maintenance. Careful observations for changes in blood pressure must be made when this compound is used with other antihypertensive drugs, especially during initial therapy. The dosage of other agents must be reduced by at least 50 percent as soon as Lasix (furosemide) is added to the regimen to prevent excessive drop in blood pressure. As the blood pressure falls under the potentiating effect of Lasix (furosemide), a further reduction in dosage, or even discontinuation, of other antihypertensive drugs may be necessary. It is further recommended, if 40 mg twice daily does not lead to a clinically satisfactory response, to add other hypotensive agents, e.g., reserpine, rather than to increase the dose of Lasix (furosemide).

INFANTS AND CHILDREN

Pediatric Administration: The usual initial dose of oral Lasix in infants and children is 2 mg/kg body weight, given as a single dose. If the diuretic response is not satisfactory after the initial dose, dosage may be increased by 1 or 2 mg/kg not sooner than 6 to 8 hours after the previous dose. Doses greater than 6 mg/kg body weight are not recommended.

For maintenance therapy in infants and children, the dose should be adjusted to the minimum effective level.

How Supplied—Lasix Tablets 40 mg (furosemide) supplied as white round, monogrammed, scored tablets.

Lasix Tablets 20 mg (furosemide) supplied as white, oval, monogrammed tablets.

Note: Dispense in dark containers. Exposure to light may cause slight discoloration which, however, does not alter potency.

Additional Information

Toxicology

The acute toxicity of Lasix (furosemide) has been determined in mice, rats, and dogs. In all three animal species, the oral LD_{50} of Lasix (furosemide) exceeded 1000 mg/kg of body weight, while the intravenous LD_{50} ranged from 300 to 680 mg/kg. Intragastric injection of the drug in newborn rats resulted in an LD_{50} of 380 mg/kg.

The acute toxicity of high doses of Lasix (furosemide) was characterized by convulsions, paralysis, and collapse. Surviving animals often became dehydrated and depleted of electrolytes due to the diuresis induced by Lasix (furosemide). In the newborn rats, intragastric injection of the drug caused hyperactivity and anorexia.

Chronic toxicity studies with Lasix (furosemide) were done in rats and dogs. In a one-year study in rats, renal tubular degeneration occurred with all doses higher than 50 mg/kg (4 times the maximal recommended human dose of 600 mg per day). A six-month study in dogs revealed calcification and scarring of the renal parenchyma at all doses above 1 mg/kg (83 percent of the maximal recommended human dose of 600 mg per day).

Reproductive Studies

The effects of Lasix (furosemide) on embryonic and fetal development and on pregnant dams were studied in mice, rats, and rabbits.

Lasix (furosemide) caused unexplained maternal deaths and abortions in the rabbit when 50 mg/kg (4 times the maximal recommended human dose of 600 mg per day) was administered between days 12 to 1 of gestation. In a previous study the lowest dose of only 25 mg/kg (2 times the maximal recommended human dose of 600 mg per day) caused maternal deaths and abortions. In a third study, none of the pregnant rabbits survived a dose of 100 mg/kg. Data from the above studies indicate fetal lethality which can precede maternal deaths.

The results of the mouse study and one of the three rabbit studies also showed an increased incidence of hydronephrosis (distention of the renal pelvis and, in some cases, of the ureters) in fetuses derived from treated dams as compared to the incidence in fetuses from the control group.



HOECHST-ROUSSEL
PHARMACEUTICALS INCORPORATED
SOMERVILLE, NEW JERSEY 08876

in Brief

A summary of AMA, medical & health news

American Medical Association / 535 North Dearborn Street / Chicago, Illinois 60610 / Phone (312) 527-1500 / TWX 910-221-0300

Commenting on a Senate committee report that fraud and abuse will account for 25% to 50% of the \$15 billion spent on Medicaid this year, AMA EVP James H. Sammons, M.D., said "The time has come to crack down—and crack down hard—on Medicaid fraud and abuse." He pointed out that the AMA House of Delegates last June condemned acts of fraud, urged government agencies to proceed with speedy prosecution and offered cooperation and assistance. Last May, the AMA announced it would participate in a HEW program to "help curb the dishonest activities of some Medicaid providers and clear the image of the overwhelming majority who are honest." Dr. Sammons also noted that the AMA had developed and sent to state medical societies two pieces of model legislation to strengthen the disciplinary powers of the state licensing boards. He said, "The AMA is pledged to take all corrective actions that are appropriate for a professional organization."

A health manpower report, issued this month by the Carnegie Foundation, warned that the nation is in danger of developing too many medical schools. It said, "The chief reason for new medical schools now is to achieve more adequate geographical distribution of schools." In 1970, the same group had recommended expansion of medical-school building. Commenting on the report, an AMA spokesman said the AMA has "never taken the position there are too many medical schools, and we disagree with (the report's) proposal to determine exact numbers and locations of schools. . . . We don't see any evidence of an excess of physicians. Although we do acknowledge a differential rate of growth, we aren't ready to sound the alarm."

The topic of the 1976 Annual Medical Services Conference, to be held in conjunction with the AMA's Clinical Convention in Philadelphia, will be the National Health Planning Law. The conference, designed to give physicians a general understanding of the law, is sponsored by the Council on Medical Service and cosponsored by the Council on Continuing Physician Education and the Pennsylvania Medical Society. Three hours credit in Category I of the Physician's Recognition Award program will be given.

HEW reported to the National Professional Stan-

dards Review Council that 87 conditional PSROs were operational on July 1. In addition, there were 33 PSRO planning contracts. Within the regions covered by conditional PSROs, HEW said, there are 144,262 physicians and 2,809 hospitals. Of these, 79,976 physicians are affiliated with PSROs and 1,113 hospitals are under review. Only eight PSROs have undertaken long-term care review activities. The department said all the 203 designated areas are expected to be represented by PSROs by January, 1978. HEW Assistant Secretary Theodore Cooper, M.D., said the PSRO program will continue to allow maximum local autonomy and that the HEW staff will emphasize quality care over cost savings.

Physicians rank highest in ethics, according to a Gallup Poll. When asked "How would you rate the honesty and ethical standards of the people in these different fields?", 55% of those interviewed rated physicians either "very high" or "high." Engineers were second with 48%, college teachers third with 44%, journalists fourth with 33% and lawyers fifth with 25%. Senators and business executives were ranked "very high" or "high" by only 19% of those interviewed, and only 14% gave congressmen this rating. Labor union leaders and advertising executives trailed with 13% and 11% ratings respectively.

A series of six Young Physician Practice Management Workshops will be held at AMA Headquarters beginning next February. The two-day workshops will be presented by the Department of Practice Management in collaboration with the Department of House Staff Affairs. Each workshop will employ the expertise of AMA staff in the medicolegal, personnel and office management areas. The workshops are open to physicians in their last year of residency and are offered primarily for those entering an office-based practice. A variety of workshops and materials has been developed by the Department of Practice Management for state, county and specialty medical societies. The department is available to work with medical societies on any of its programs, offering a tangible membership benefit at a reasonable cost. For information write Department of Practice Management, AMA Headquarters.

Continuing Education Coming Events

Ed Bixby Institute for Postgraduate Education

Research Medical Center
2316 E. Meyer Blvd.
Kansas City 64132

- Dec. 1 Current Concepts of Immune Disorders
(1977)
- Feb. 2 Cancer: Hodgkin's Disease and Other Lymphomas (Fourth Annual Seminar)
- Apr. 6 Thyroid Disease: Update 1977
- June 1 Pulmonary Disease (Third Annual Seminar)
- Aug. 3 Critical Care

Greene County Medical Society

Professional Bldg., Springfield 65806
(417) 869-2531
Contact: James E. Thompson, Jr., Exec. Director

- Nov. 19 Medical and Surgical Treatment of Arthritis
(Sponsored by GCMS Foundation's Paul Carrick Trust)

Menorah Medical Center

4949 Rockhill Rd., Kansas City 64110
(816) 276-8095
Contact: Carol G. Hamilton, Coordinator

- Nov. 10-12 Clinical Advances in Pediatrics
(At The Children's Mercy Hospital)

Missouri Chapter—American College of Physicians

Contact: Thomas W. Burns, M.D., F.A.C.P., University of Missouri School of Medicine, Columbia 65201

- Feb. 25-26 Missouri Regional Meeting

St. Louis University Medical Center

Continuing Education
1402 S. Grand Blvd., St. Louis 63104
(314) 664-9800
Contact: John A. Grellner, Director

• • •

Wohl Memorial Mental Health Institute

1221 S. Grand Blvd.
St. Louis 63104
(314) 771-7600-Sta. 3940
Contact: Kenneth D. Michael, M.D.

- Oct. 14 Human Psychology as Revealed in Great Literature (Six monthly sessions—Oct. 14, Nov. 11, Dec. 9, Jan. 13, Feb. 10, Mar. 10)

The continuing medical education accreditation program of the MSMA has full approval by AMA's Council on Medical Education. The institutions and functions listed here qualify for Category I credit for the AMA Physician's Recognition Award. All accredited institutions in Missouri are invited to send this information for listing in MISSOURI MEDICINE. Please remember to include name of individual who can be contacted at your institution for additional information about your CME events.

University of Missouri-Columbia School of Medicine

Continuing Education/Extension
M-175 Medical Center, Columbia 65201
(314) 882-2256
Contact: Gail Bank, Exec. Director

Kansas City Society of Ophthalmology and Otolaryngology

3036 Gillham Rd.
Kansas City 64108
(816) 531-8432
Contact: Roger Weis, Executive Director

- Dec. 9-10 Annual Clinical Meeting

University of Missouri-Kansas City School of Medicine— Kansas City Southwest Clinical Society

Continuing Medical Education
2220 Holmes St., Kansas City 64108
(816) 471-3876
Contact: Alta Bingham

- Oct. 21-23 Annual Fall Clinical Conference, K.C. Southwest Clinical Society
- Nov. 19-20 Long Weekend—Neurology/Pharmacology
- Dec. 9-11 The Heart-1976—Current Topics in Cardiology
(1977)
- Jan. 23-28 Mid-Winter Traveling Medical Education Course (Steamboat Springs, Colo.)
- Feb. 18-19 The Long Weekend—Fluid and Electrolyte Disorders I & II
- Mar. 31-Apr. 1 Symposium on Obstetrics/Gynecology
- Apr. 15-16 The Long Weekend—Diabetes Mellitus/Endocrinology
- May 12-13 Complications of Gastrointestinal Tract Surgery
- June 2-3 Symposium on Physical Fitness

University of Kansas Medical Center

Div. of Continuing Education
College of Health Sciences
Kansas City, Kan. 66103
(913) 831-7130

- Sept. 23-24 Tenth Annual Symposium on Potpourri Respiratory Therapy (Hilton Plaza Inn, Kansas City, Mo.)
(Continued on next page)

Oct. 26-27	Medicine and Religion
Dec. 6-7	Gynecology and Obstetrics
Dec. 8-10	Medical Technology (1977)
Feb. 14-15	Neurological Diseases
Mar. 7-9	Pediatrics
Mar. 17-18	Emergency Medicine: The First 90 Minutes
Mar. 28-30	Ophthalmology
Mar. 31-Apr. 1	Rehabilitation Medicine
Apr. 20-21	Family Practice
Apr. 22	Infectious Diseases

Washington University School of Medicine

660 S. Euclid Ave., St. Louis 63110
(314) 454-2515

Contact: Loretta Giacometto

Nov. 12-14	Third Annual Symposium: Anesthesia and the Geriatric Patient
Dec. 5	Current Topics in Diabetes (1977)
Mar. 4-5	Clinical Endocrinology
Mar. 11-12	A Postgraduate Course in Otolaryn- gology

* * *

The Edward Mallinckrodt Institute of Radiology

510 S. Kingshighway, St. Louis 63110
(314) 454-2291

Contact: Ronald G. Evens, M.D.

Nov. 8	Radiologic Investigation of Malignant Disease in Children
Dec. 13	Clinical Utility of Ultrasound (1977)
Jan. 10	Oral Cholecystography
Feb. 14	Esophageal Ulcer Disease
Apr. 11	Osteophytes, Syndesmophytes and other "Sygthes"
May 9	Newer Trends in Mammography—Med- ical and Physical

The first Continuing Medical Education event to be presented by a county medical society in Missouri will be presented by Greene County Medical Society on November 19 at Drury Inn in Springfield.

The symposium is on "Medical and Surgical Treatment of Arthritis." Registration will begin at 8:30 AM. The program will continue until 4:30 PM. Registration fee of \$10 will include the meeting, luncheon and coffee recesses.

CME accreditation has been applied for.

THE ST. LOUIS SURGICAL SOCIETY

presents

THE 1976 FALL PANEL DISCUSSION

"MICRO-SURGERY"

Julius H. Jacobson, II, M.D.
Director of Vascular Surgery
Mt. Sinai Hospital, N.Y., N.Y.
"Guest Moderator"

Harold E. Kleinert, M.D.
Clinical Professor of Surgery
University of Louisville, Louisville, Ky.
"Special Guest Lecturer of the Hand"

Clark Watts, M.D.
Professor & Chairman of the
Department of Neurosurgery
University of Missouri, Columbia, Mo.

Sherman Silber, M.D.
Urologist
St. Louis, Missouri

William Shieber, M.D.
Director, Division of Vascular Surgery
Jewish Hospital, St. Louis, Missouri

TUESDAY, NOVEMBER 2, 1976
5:30 P.M.

ST. LOUIS MEDICAL SOCIETY
AUDITORIUM
3839 Lindell Boulevard
St. Louis, Missouri

From the Medical Schools



SAINT LOUIS UNIVERSITY

Richard T. Stith, III, Ph.D., has been appointed Director of the Developmental Program in Bio-medical Ethics at the School of Medicine.

A native of St. Louis, Dr. Stith received his A.B. degree from Harvard College, in Cambridge, Mass., in 1945. He participated in the joint program in law and ethics at Yale University from 1967-1973 and received his M.Phil., J.D., and Ph.D. degrees there. He also received an M.A. degree from the University of California at Berkeley in 1967.

Before accepting the position here, Dr. Stith was an assistant professor of law at Valparaiso University, Valparaiso, Ind.

Dr. Stith has been the recipient of several fellowships including the National Merit, John Harvard, Fulbright, Kent National Defense Foreign Language and Robert C. Bates Resident Junior Fellow.

A three-year renewal grant of \$114,288 has been awarded to *Duane P. Grandgenett*, Ph.D., assistant professor of Molecular Virology, by the National Cancer Institute, National Institutes of Health. The grant, entitled "Avian RNA Tumor Virus DNA Synthesis and Its Regulation," will be used to develop an understanding of how RNA tumor viruses replicate and cause different cancers in various animal systems. Through these model systems it may be

possible to determine if similar viruses are involved in human cancers.

Homer A. Lozeron, Ph.D., assistant professor of Biochemistry, was awarded a renewal grant of \$42,666 from the Department of Health, Education and Welfare for a research project entitled "Post-Transcriptional Regulation in Biological Systems."

This investigation is primarily aimed at providing detailed information to aid in the understanding of positive control and post transcriptional regulation in a viral (lysogenic) system that has features in common with malignant transformation by oncogenic viruses.

WASHINGTON UNIVERSITY

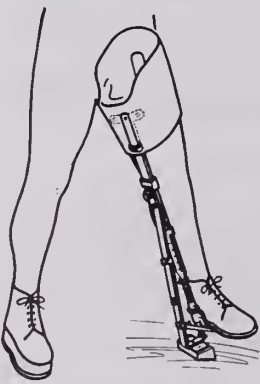
More than \$7.9 million in free medical care was provided by institutions of the Medical Center during the 1975 fiscal year, according to the Center's annual report. In addition, the Center's institutions invested \$13 million in capital improvements and spent \$26.1 million for research.

Samuel B. Guze, M.D., president of the Medical Center, presented the report to the annual meeting of the Center's Board of Directors on September 14. *Charles A. Thomas*, Sc.D., was reelected Chairman of the Board.

In the annual report, Dr. Guze reviewed the recent projects within the Washington University Medical Center Redevelopment area. More than \$31 million in construction projects have been started or committed since the City of St. Louis approved the redevelopment plans two years ago.

As in past years, Dr. Guze emphasized the Center's commitment to research and education. "The combined teaching, research and clinical resources of the Medical Center provide a rich environment for learning," Dr. Guze said. "In this setting, Medical Center students from different disciplines often can work and study together."

To secure future development of the Center, land acquisitions have extended the Medical Center's area to 52 acres, and more than \$100 million of new construction over the next five to eight years has been committed or is in an advanced state of planning by member institutions.



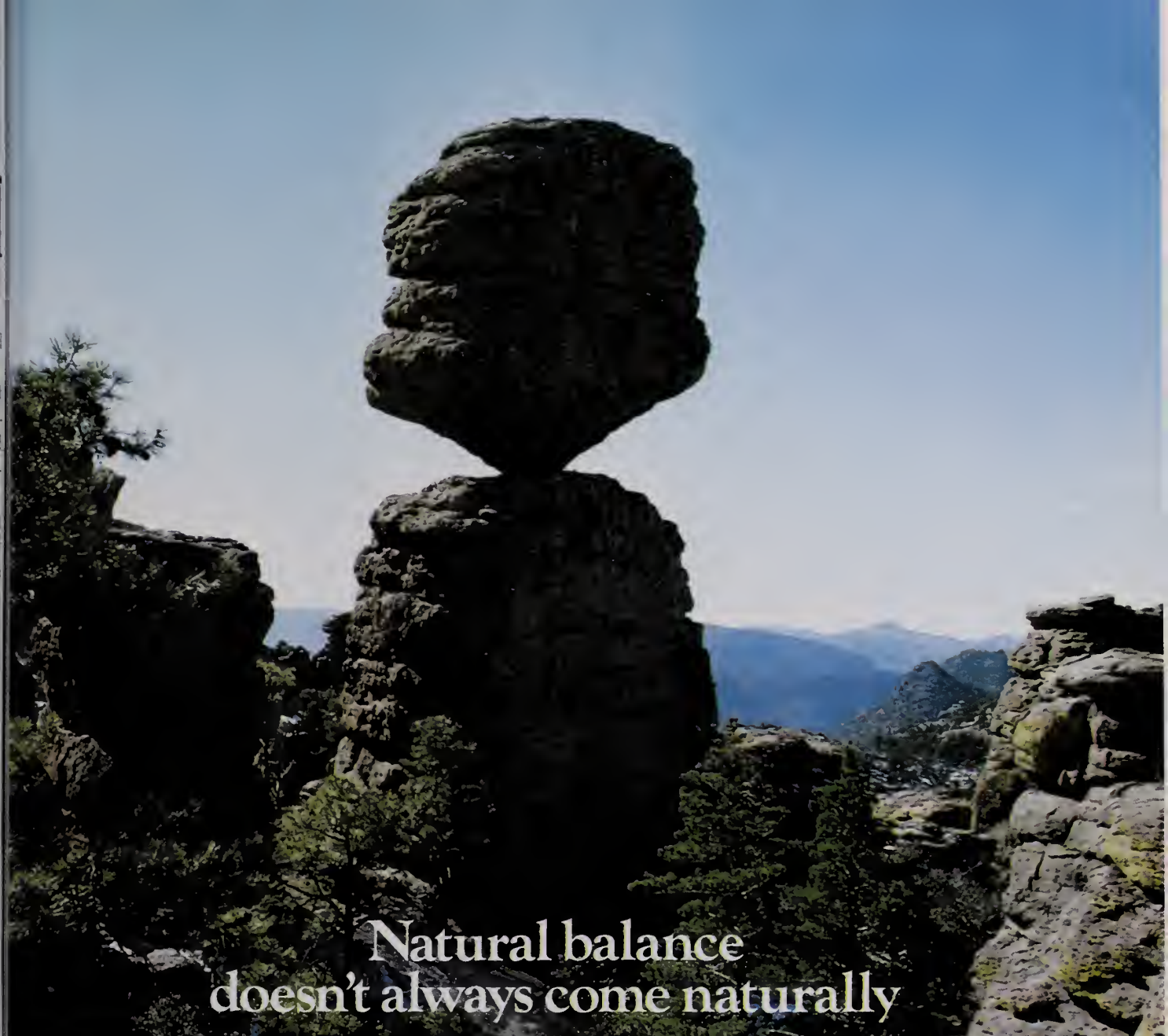


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- **Relief of Nausea and Vomiting**—Antivert/25 can relieve the nausea and vomiting often associated with vertigo*.
- **Dosage for Vertigo***—The usual adult dosage for Antivert/25 is one tablet t.i.d.

BRIEF SUMMARY OF PRESCRIBING INFORMATION

*INDICATIONS. Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows:

Effective: Management of nausea and vomiting and dizziness associated with motion sickness.

Possibly Effective: Management of vertigo associated with diseases affecting the vestibular system.

Final classification of the less than effective indications requires further investigation.

CONTRAINDICATIONS. Administration of Antivert (meclizine HCl) during pregnancy or to women who may become pregnant is contraindicated in view of the teratogenic effect of the drug in rats.

The administration of meclizine to pregnant rats during the 12-15 day of gestation has produced cleft palate in the offspring. Limited studies using doses of over 100 mg./kg./day in rabbits and 10 mg./kg./day in pigs and monkeys did not show cleft palate. Congeners of meclizine have caused cleft palate in species other than the rat.

Meclizine HCl is contraindicated in individuals who have shown a previous hypersensitivity to it.

WARNINGS. Since drowsiness may, on occasion, occur with use of this drug, patients should be warned of this possibility and cautioned against driving a car or operating dangerous machinery.

Usage in Children: Clinical studies establishing safety and effectiveness in children have not been done; therefore, usage is not recommended in the pediatric age group.

Usage in Pregnancy: See "Contraindications."

ADVERSE REACTIONS. Drowsiness, dry mouth and, on rare occasions, blurred vision have been reported.

More detailed professional information available on request.

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New York, New York 10017

Antivert[®]/25 
(meclizine HCl) 25 mg. Tablets
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RECENT CHANGES

federal register

**Providing
Drug Information
to Physicians**

**Informational
Bulletin #433-76**

**National
Health
Insurance**

**special report
Malpractice
insurance:**

**drug
bulletin**

**Health care doesn't
need more red tape**

**Drug firms challenge
'MAC' rules**

**Drug
Substitution**

**The Consumer Determinator
of Health Progress
RESEARCH**

Mailgram

THERE ARE A LOT OF PEOPLE GETTING BETWEEN YOU AND YOUR PATIENT.

Medicine today is in the spotlight, subjected to all kinds of scrutiny. Your control over patient therapy is being monitored, judged and occasionally abrogated, sometimes by unknown third parties.

The worry is that in the wake of this focus, the relationship between you and your patient will be weakened, without offsetting benefits. Consider three examples:

Drug substitution In most states, pharmacy laws, regulations or professional custom stipulate that your non-generic prescriptions be filled with the precise products you prescribe. But in the last five years, a dozen or more State laws have been changed, permitting the pharmacist in most cases to select a product of the same generic drug to fill any prescription.

Ironically, this dilution of physician control has taken place against a background of growing evidence that purportedly equivalent drug products may be inequivalent, since neither present drug standards nor their enforcement are optimal. In fact, the FDA itself says it has not enforced the same standards for hundreds of "follow-on" products that it had applied to the original FDA approvals. Thus physician control over patient therapy is being eroded with a risk that patients may be exposed to drugs of uncertain quality.

The major advertised claim for substitution is reduced prescription prices for consumers. Yet no documentation of any significant savings has been produced.

MAC Maximum Allowable Cost, MAC for short, is Federal regulation designed to cut the Government's drug bill by setting price ceilings for drugs dispensed to Medicare and Medicaid patients. Unless the prescriber certifies on the prescription that a particular product is medically necessary, the Government intends to pay only for the cost of the lowest-priced, purportedly-equivalent,

generally-available product. The effect of the program may be that elderly and indigent patients will be restricted to products which someone in Washington believes are priced right. Practicing doctors will have little to say about administration of the program, since Government will have absolute authority to make its choices stick.

The drug lag The future of drug and device research depends upon a scientific and regulatory environment that encourages therapeutic innovations. The American pharmaceutical industry annually is spending more than \$1 billion of its own funds and evaluating more than 1,200 investigational compounds in clinical research. Disease targets include cancer, atherosclerosis, viruses and central nervous system disorders, among others. But there is a major barrier to the flow of new drugs to your patients: The cost of the research is more than ten times what it was, per product, in 1962; and whereas governmental clearance of new drug applications took six months then, it commonly consumes two years now.

The FDA needs adequate time, of course, to consider data. But it is equally clear that the present approval process contributes to needless delay of needed therapy. That's why the increased efficiency of the drug approval process is vital to all our futures.

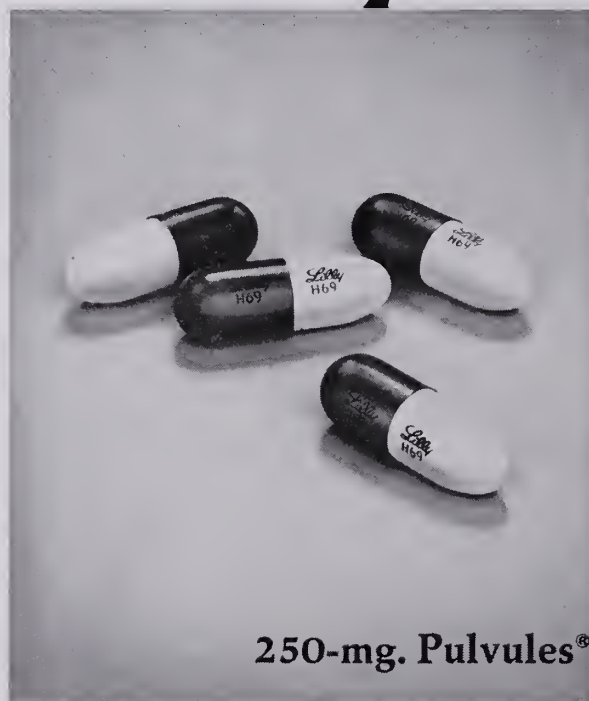
If these issues concern you, we suggest that you make your voice heard—among your colleagues and your representatives in State legislatures and in Washington.

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Missouri Medicine

JOURNAL OF THE MISSOURI STATE MEDICAL ASSOCIATION

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SHERWIN MALT, M.D. and
WILLIAM SHIEBER, M.D., St. Louis

Benign Hepatic Tumors Secondary to Oral Contraceptives

Case Reports

AFTER BAUM'S INITIAL REPORT of experience with seven cases of benign hepatic tumors associated with oral contraceptives,¹ at least 17 additional such cases have been described in the English literature.²⁻⁹ Experience at The Jewish Hospital of St. Louis indicates that this tumor may not be as unusual as previously thought. This is a report of three more cases and review of the literature.

CASE REPORTS

Case # 1 A 27-year-old white woman who had been taking norethynodrel with mestranol (Enovid®) for five years was admitted as an emergency patient to The Jewish Hospital of St. Louis for the complaints of sudden severe epigastric pain and pain radiating from the upper right quadrant to the right shoulder. She was nauseated and vomited once. Narcotics only slightly relieved the pain. Physical examination revealed an acutely ill woman. The vital signs were stable. Her abdomen was tender in the epigastric and right subcostal regions. Bowel sounds were hypoactive. No masses or organs were palpable nor was rebound elicited. The hemoglobin level was 11.8 gm/100 ml on the day of admission, but it dropped to 9.8 gm/100 ml in 48 hours. Amylase, bilirubin and alkaline phosphatase determinations were within normal limits. Abdominal x-rays were interpreted as normal, but the right lobe of the liver was noted to be enlarged secondary to a Reidel's lobe. Results of an upper gastrointestinal (GI) series and double-dose gallbladder series were normal.

Three days after admission, the patient underwent exploratory laparotomy because of persistent symptoms. A mass which was 11 cm in diameter was encountered

mainly in the right lobe of the liver, but it extended into the left lobe as well. A wedge biopsy of the tumor was diagnosed by the pathologist as focal nodular hyperplasia on frozen section, but it was called an adenoma after examination of the permanent slides. The mass was not removed, and the patient has done well since. A liver scan obtained three years later showed a decrease in the size of the mass. The patient has not used birth control medication since the operation.

Case # 2 A 29-year-old black woman noticed a mass in the right upper quadrant one year prior to admission. There had been no change in size of the mass and no symptoms noted by the patient other than a sensation of heaviness when standing for long periods of time. She was admitted to The Jewish Hospital of St. Louis when her internist discovered the mass during

In addition to reporting three cases of benign hepatic tumors associated with oral contraceptives, the authors review the 24 cases previously described in the literature. Their experience indicates that this tumor may not be as unusual as it has been considered to be. Because of the risk of fatal hemorrhage, elective resection of this lesion should be performed. Dr. Malt is Clinical Instructor of Surgery and Dr. Shieber is Associate Professor of Clinical Surgery, The Jewish Hospital of St. Louis and Washington University School of Medicine.



Fig. 1 Resected specimen shows liver tumor with hemorrhage (Patient #2).

a routine physical examination. She had been taking various birth control pills for nine years and diazepam intermittently. She had lost 13 pounds in the three months prior to admission in spite of a normal appetite.

On physical examination, she had a flat affect; there was evidence of recent weight loss. A 12 cm abdominal mass on the right side extending from the right costal margin to the iliac crest could be felt. The sickle cell prep was negative. Blood chemistries (SMA-12) were within normal limits except for an alkaline phosphatase of 108 units (normal, 15-100 units). The alpha-feto-protein was negative. Barium contrast studies of the abdomen suggested a retroperitoneal mass with displacement of the gallbladder, duodenum and colon from the right towards the midline. Abdominal angiograms disclosed a 12 cm x 13 cm mass supplied by branches of the right hepatic artery and extending in a pedunculated fashion from the right lobe of the liver. At operation, a large vascular mass was found, attached by a thin pedicle and extending inferiorly from the free edge of an otherwise normal right lobe of the liver (Fig. 1).

The mass was easily resected by the use of a TA-90 stapler. A 2 cm, similar-appearing tumor seen on the free edge of the left lobe also was resected. Although the patient desired that a tubal ligation be performed during surgery, her husband would not consent and the procedure was not done. Both liver masses were diagnosed as hepatic adenomas on microscopic examination. The postoperative course was complicated by a flaccid right hemiparesis, felt to be secondary to a cerebral thrombosis. About a month after discharge from the hospital, the patient was readmitted with a diagnosis of pulmonary embolus. Oral contraceptives were discontinued at the first admission. The type of contraception used at present (if any) is unknown.

Case # 3 A 35-year-old white woman was admitted as an emergency patient to The Jewish Hospital of St. Louis because of abdominal pain of 18 hours duration. She had been taking ethynodiol diacetate with mes-tranol (Ovulen®) for ten years but no other medication. On the night before admission, she experienced severe epigastric pain which was followed shortly by



Fig. 2 Resected specimen shows liver tumor with hemorrhage (Patient #3).

nausea and vomiting. She had noted loose stools for two days prior to admission.

Physical examination disclosed an obese woman in no acute distress. Vital signs were stable. There was moderate epigastric tenderness with a vague sensation of a mass just to the left midline in the epigastrium. The liver and spleen were nonpalpable. The remainder of the physical examination was within normal limits. Laboratory studies disclosed a hemoglobin level of 8.8 gm/100 ml; the white blood cell count was 17,000/cu mm. The SMA-12 disclosed an alkaline phosphatase value of 105 units/100 ml; lactic acid dehydrogenase (LDH) of 165 units (normal, 90-225 units); and serum glutamic-pyruvic transaminase of 265 units (normal, 8-30 units). An upper GI series showed extrinsic compression of the mid-portion of the stomach by a mass. The left lobe of the liver was large. A liver scan demonstrated moderate hepatic enlargement with diffuse fatty infiltration; there was a large defect in the free edge of the left lobe of the liver. An arteriogram with injection of celiac, superior mesenteric and selective right hepatic arteries was performed. A large mass was demonstrated in the left lobe of the liver with vascularity of its outer margins and the suggestion that the inner portion was avascular. There was a high flow rate through the hepatic artery causing considerable contrast washout. The exact feeding vessels of this mass were not demonstrated.

At operation, a mass in the left lobe of the liver corresponding to the defect in the liver, which was seen on the liver scan, was found. A partial left hepatectomy and bilateral tubal ligation were performed. The pathological diagnosis of the 5 cm x 3 cm mass was hepatic adenoma with central hemorrhage and necrosis (Fig. 2). The postoperative course was unremarkable and the patient has remained well for three months.

TABLE 1
BENIGN LIVER TUMORS ASSOCIATED WITH ORAL CONTRACEPTIVES

Case #	Author	Size (cm)	Location	Survival	Age	SX	BCP	Years Duration	Operation
1	Baum ¹	4.5	Lt Lobe	Yes	26	Bleed	Yes	2	Lobectomy
2	"	12	Rt Lobe	No	27	Bleed	Yes	?	Lobectomy
3	"	12 x 6	Lt Lobe	Yes	25	Mass	?	6	Local
4	"	?	Rt Lobe	Yes	25	Bleed	Yes	0.5	Lobectomy
5	"	12	Rt Lobe	Yes	29	Mass	Yes	5	Local
6	"	18 x 17	Rt Lobe	Yes	30	Bleed	?	8	Lobectomy
7	"	10	Rt Lobe	Yes	39	Bleed	Yes	7	Lobectomy
8	Contostavlos ²	15	Rt Lobe	No	37	Bleed	Yes	?	None
9	Berg ³	1,000 gm	?	No	23	Bleed	?	5	Lobectomy
10	"	?	?	No	24	Bleed	?	?	None
11	"	?	?	No	27	Bleed	?	0, pregnant	None
12	"	?	?	No	32	Bleed	?	8	None
13	Knapp ⁴	16 x 17	Rt Lobe	No	33	Bleed	Yes	Several	Lobectomy
14	Kelso ⁵	"Large"	Rt Lobe	No	36	Bleed	Yes	5-6	Lobectomy
15	Horvath ⁶	870 gm			28		Yes	7	
16	Mays ⁷	4.5	Rt Lobe	Yes	42	Pain	Yes	5	Lobectomy
17	"	10	Rt Lobe	Yes	26	Bleed	Yes	7	Lobectomy
18	"	1,150 gm	Lt Lobe	Yes	25	Bleed	Yes	5	Lobectomy
19	O'Sullivan ⁸	7.5	Rt Lobe	Yes	34	Mass	Yes	4	Local
20	"	10	Lt Lobe	Yes	35	Mass	Yes	5	Bx.
21	"	5	Lt Lobe	Yes	51	Mass	Yes	8	Local
22	Stauffer ⁹	10	Lt Lobe	Yes	25	Mass	?	8	Local
23	"	?	Lt Lobe	Yes	29	Mass	Yes	6	Partial Lobectomy
24	"	10	Rt Lobe	Yes	29	Bleed	Yes	6	Evacuate hematoma and necrotic tissue
25	Malt	12 x 13	Rt Lobe	Yes	29	Mass	Yes	9	Local
26	"	3 x 5	Lt Lobe	Yes	35	Pain	Yes	10	Partial Lobectomy
27	"	11	Rt and Lt Lobes	Yes	27	Pain	Yes	5	Biopsy

DISCUSSION

Although the liver tumors found in patients receiving long-term oral contraceptives have been reported to be hamartomas⁸ on occasion, the histologic description usually given is consistent with focal nodular hyperplasia rather than hamartoma. According to the classification and description of these tumors by Edmundson,¹⁰ the differentiation of hepatic adenoma, focal nodular hyperplasia and hamartoma should be made by experienced pathologists and is as follows. An adenoma is an encapsulated lesion without lobular architecture. Large vacuolated hepatocytes with mild atypia comprise the bulk of the tumor. No portal tracts, bile ducts or central veins are identified. In focal nodular hyperplasia, spherical nodules of hepatocytes are separated by fibrous trabeculae, often in a stellate fashion. No atypical hepatocytes are seen. Proliferating bile ducts and lymphocytic infiltration commonly occur in the fibrous tissue. True en-

capsulation is not usually found. A hamartoma is composed of embryonal mesenchyme with random hepatic cords and ducts traversing a myxoid stroma. Multiple epithelial lined cysts are contained within the stroma.

To date, all liver tumors found in association with oral contraceptives have been either adenomas or instances of focal nodular hyperplasia. A search of the English literature has revealed 24 cases of benign hepatic tumors associated with chronic oral contraceptive use. Table 1 summarizes the findings of 27 cases (24 from the literature and three from Jewish Hospital). The discovery of these tumors has been prompted by (a) pain or shock from hemorrhage into the tumor, (b) palpation of an asymptomatic abdominal mass or (c) surgery for other problems.

Hepatic vein thrombosis associated with contraceptives has been documented since 1968.¹¹⁻¹⁶ Whether this phenomenon is a result of localized

endothelial trauma during liver clearance of the drug or alteration in some portion of the blood clotting mechanism is unknown. It is intriguing to speculate about whether the cerebral thrombosis and pulmonary embolism in Case #2 were manifestations of abnormal blood clotting and, therefore, also complications of oral contraceptive use by the patient.

Oral contraceptives have been shown to cause hepatotoxic changes in some patients. Thulin has described jaundice in seven women taking ethinylloestradiol (0.05 mg) plus norethisterone (4 mg) (Anovlar®).¹⁷ Additionally, ultrastructural changes in mitochondria of liver cells of women with histories of long-term oral contraceptive use¹⁸ are identical to those changes seen in benign hepatic adenomas.¹⁹ The hemorrhagic or blood-filled cysts of peliosis hepatis have been associated with anabolic steroids which are structurally related to the progestins used in oral contraceptives.^{20, 21}

Formal hepatic lobectomy was required in ten of 12 cases cited in the literature in which free intraperitoneal hemorrhage was the indication for surgery. Four (33%) of the 12 patients operated on because of hemorrhage died after surgery and four other patients died before reaching the hospital, raising the overall mortality rate from hemorrhage to 50%. Only one tumor that caused hemorrhage was less than 5 cm in diameter. Patients explored for an abdominal or liver mass could usually be treated by local excision of the tumor rather than formal hepatic lobectomy in spite of large tumor size. It is likely that the conservative resections performed during elective surgery were a reflection of tumor location rather than size, since tumor size was as large in patients undergoing conservative resection as in those who had hepatic lobectomy. Another less likely explanation might be that elective surgery patients had well defined tumors, while those patients having emergency resections had obscure tumor margins as a result of hemorrhage.

Since the association of benign liver tumors with birth control pills has only recently been described, no series has yet reported results of conservative management of this lesion, i.e., discontinuation of birth control medication to see if the tumor regresses. Results for the patient described in Case #1 would suggest that such conservative management may be possible. It would appear that the risk of spontaneous bleeding in large asymptomatic tumors is great enough to warrant elective resection. Conservative management would seem more

logical for a tumor less than 5 cm in diameter, although it is unlikely that such a tumor would be easily discovered. The sudden onset of pain in the right upper quadrant or epigastric pain in a woman taking oral contraceptives and who is found to have a liver tumor probably indicates hemorrhage, no matter what the size of the tumor. Diagnostic liver needle biopsy is ill advised in view of the remarkable vascularity of these lesions and the possibility of severe bleeding.

SUMMARY

Three cases of benign hepatic tumors associated with birth control pills in addition to the 24 previously published cases are described. Because of the risk of fatal hemorrhage, elective resection of these lesions should be performed. Emergency surgery for these cases is attended by a 33% operative mortality, while the reported operative mortality for elective liver resection is 0%. The relationship of steroids and hepatocellular toxicity is reviewed.

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Thyroid Surgery in a Community Hospital

A Ten-Year Review

THE SELECTION OF PATIENTS for thyroid surgery is a subject of continued dispute. Thyrotoxic patients may be treated medically, surgically or with radioactive iodine. Patients with nodular glands are operated on with the hope of finding and removing cancers while they are still in a curable state. Other patients are operated on for removal of large, unsightly masses that may or may not interfere with breathing or swallowing.

In the decade from Jan. 1, 1966 to Dec. 31, 1975, a total of 93,516 patients were admitted to St. Joseph Hospital and 49,044 operations were performed. In this period, 187 thyroid operations were done on 183 patients (four were secondary operations on cancer patients). The frequency of thyroid surgery remained essentially unchanged from year to year.

CLINICAL MATERIAL

The records of these 183 patients were reviewed. Eight patients (4.4%) were operated on for large goiters with pressure symptoms. These glands varied from 100 gm to 470 gm. These patients tended to be elderly, varying in age from 50 to 81 years and averaging 67.3 years. Forty patients (22%) were operated on for hyperthyroidism. One hundred and thirty-five (74%) were operated on because of nodular glands suspicious of cancer.

The histologic classification of Warren and Meissner¹ has been used. An adenomatous goiter is an enlarged thyroid gland with multiple nodular areas. The nodular areas do not have a true capsule. Within the nodules of the same gland, the follicular epithelium may undergo simultaneous hyperplasia and involution. The nodules may vary from less than a millimeter to several centimeters in diameter. Varying amounts of colloid may be present in the follicles of different areas.

An adenoma is an encapsulated, benign neoplasm which compresses the normal thyroid tissue surrounding it. The histologic pattern of the cells within the adenoma must differ from that of the surrounding thyroid tissue. The cells of the adenoma may invade into but not through the capsule. True adenomas include follicular, papillary, em-

bryonal, fetal and Hurthle cell adenomas.

Carcinoma is diagnosed when there is invasion through the capsule, invasion into blood or lymph vessels or if there are lymph node or distant metastases. Malignant neoplasms of the thyroid include papillary carcinomas, follicular carcinomas and anaplastic undifferentiated carcinomas of small or large cell types. In addition, there is the rare medullary carcinoma as well as epidermoid, Hurthle cell carcinomas and lymphoma and fibrosarcoma.

RESULTS

The data obtained from the study of the 135 patients operated on because of nodules in the thyroid gland are categorized and presented in Tables 1 through 4.

Thyroid scans became available in 1967 and were used with increasing frequency as the staff became more aware of their usefulness. Perhaps the most common indication for surgery in the later part of the study was the presence of a solitary cold nodule. Table 1 presents the findings of scans done on 98 patients with nodular thyroid glands. In two instances, scans were technically unsatisfactory because of poor or spotty uptake of radioactive iodine in patients who were later found to have thyroiditis at surgery. Of 64 patients coming to surgery with a solitary cold nodule, nine (14%) were found to have thyroid cancer. Of 14 patients with

One hundred and eighty-seven thyroid operations were performed on 183 patients at St. Joseph Hospital during the past decade. In the analysis of the records of these patients, particular attention was given to indication for surgery, frequency of cancer in nodular thyroids, the usefulness of thyroid scans and the relationship of the toxic thyroid gland to thyroiditis. A detailed report of an unusual case of hypercalcemia of thyrotoxicosis is included. Dr. Holtz is from St. Joseph Hospital where he presented this paper at the monthly surgery conference in February.

TABLE 1
THYROID SCANS ON 98 PATIENTS WITH NODULAR THYROIDIS

		Adenomatous Goiter	Follicular Adenoma	Thyroiditis	Cancer	Others
Solitary cold nodules	64	27 (42%)	18 (28%)	8 (12%)	9 (14%)	2 (3%) *
Multiple cold nodules	14	11 (79%)		1 (7%)	2 (14%)	
Hot nodules	10	7	2	1		
Normal distribution	8	4	1	1	2	
Technically unsatisfactory				2		
Totals	98	49	21	13	13	2

* One thyroid developmental cyst, one colloid goiter.

TABLE 2
HISTOLOGIC TYPES OF 132 NODULAR THYROIDIS BY AGE AND SEX

	Sex	Totals	10-19	20-29	30-39	40-49	50-59	60-69	70-79	Average Age
Adenomatous goiters	M	10			2	3	3	1	1	50.7 years
	F	58	3	9	10	15	9	8	4	44.4 years
Follicular adenomas	M	6	1		2	1	1	1		40.3 years
	F	27	1	5	9	6	3	2	1	37.6 years
Thyroiditis	M	0								
	F	16	1	1	3	5	5	1		44.0 years
Cancers	M	5			3	1		1		42.0 years
	F	10	2	1	2			4	1	45.5 years

Three patients with miscellaneous nodules did not fall into the above categories.

TABLE 3
COMPARISON OF FREQUENCY OF HISTOLOGIC
TYPES OF NODULAR GOITER

	St. Joseph Hospital	Peter Bent Brigham Hospital
Adenomatous goiter	68 (52%)	301 (60%)
Adenomas	33 (25%)	131 (26%)
Thyroiditis	16 (12%)	27 (5%)
Cancers	15 (11%)	44 (9%)
Totals	132 (100%)	503 (100%)

multiple cold nodules, two (14%) had cancers. It is of interest to note that two patients with normal distribution were found to have cancer. One patient had her scan done elsewhere in 1966. The history stated that the scan report read, "Not indicative of malignant lesion." The second patient had a 2 cm x 2.5 cm hard nodule in the isthmus. Her scan was reported as "homogenous distribution throughout both lobes."

Table 2 divides the patients into histologic subgroups on the basis of their age and sex. It is readily seen that nodular goiter is more common in females than males by a 6 to 1 ratio and that its appearance in women occurs about two decades ear-

TABLE 4
COMPARISON OF FREQUENCY OF
HISTOLOGIC TYPES OF CANCERS AT ST. JOSEPH
HOSPITAL AND PETER BENT BRIGHAM HOSPITAL

Pure papillary	2	} (60%)	21 (48%)
Mixed pap. & foll.	7		
Follicular carcinoma	3		10
Undifferentiated	1		12*
Epidermoid			1
Lymphoma	2		

* Three of Peter Bent Brigham cases of undifferentiated cancers were presumptive diagnoses.

lier than in men. Veith,² in his review of thyroid surgery at Peter Bent Brigham Hospital, made a point of the fact that nodular goiter was much more common after the age of 40. Twenty-two or 40% of the women in this series with nodular goiter were under 40 years of age. Three were found in teenage girls. Follicular adenoma again shows a female predominance by a ratio of 4 to 1 and, again, the disease occurs about two decades earlier in females than in males. Thyroiditis was seen only in women in this series with the peak incidence at about age 50, but with one occurring in the teenage years and another in the late 20s. The patients with

(Continued on page 568)

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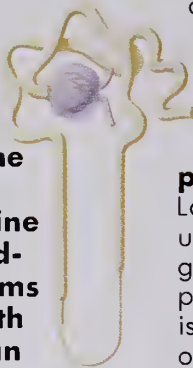
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(Please see the dosage and administration section on the last page of this advertisement.)

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(See next page for prescribing information.)

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A brief summary of the Prescribing Information for
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WARNING—Lasix (furosemide) is a potent diuretic which if given in excessive amounts can lead to a profound diuresis with water and electrolyte depletion. Therefore, careful medical supervision is required, and dose and dose schedule have to be adjusted to the individual patient's needs. (See under "Dosage and Administration.")

Indications—Lasix (furosemide) is indicated for the treatment of the edema associated with congestive heart failure, cirrhosis of the liver, and renal disease, including the nephrotic syndrome.

Hypertension—Lasix (furosemide) may be used for the treatment of hypertension alone or in combination with other antihypertensive drugs. Hypertensive patients who cannot be adequately controlled with thiazides will probably also not be adequately controllable with Lasix (furosemide) alone.

CONTRAINDICATIONS—Because animal reproductive studies have shown that Lasix (furosemide) may cause fetal abnormalities, the drug is contraindicated in women of childbearing potential. (See "Additional Information.")

Lasix (furosemide) is contraindicated in anuria. If increasing azotemia and oliguria occur during treatment of severe progressive renal disease, the drug should be discontinued. In hepatic coma and in states of electrolyte depletion, therapy should not be instituted until the basic condition is improved or corrected. Lasix (furosemide) is contraindicated in patients with a history of hypersensitivity to this compound.

Warnings—Excessive diuresis may result in dehydration and reduction in blood volume, with circulatory collapse and with the possibility of vascular thrombosis and embolism, particularly in elderly patients. Excessive loss of potassium in patients receiving digitalis glycosides may precipitate digitalis toxicity. Care should also be exercised in patients receiving potassium depleting steroids.

Frequent serum electrolyte, CO₂, and BUN determinations should be performed during the first few months of therapy and periodically thereafter, and abnormalities corrected or the drug temporarily withdrawn.

In patients with hepatic cirrhosis and ascites, initiation of therapy with Lasix (furosemide) is best carried out in the hospital. Sudden alterations of fluid and electrolyte balance in patients with cirrhosis may precipitate hepatic coma; therefore, strict observation is necessary during the period of diuresis. Supplemental potassium chloride and, if required, an aldosterone antagonist are helpful in preventing hypokalemia and metabolic alkalosis.

Patients should be observed regularly for the possible occurrence of blood dyscrasias, liver damage, or other idiosyncratic reactions.

In those instances where potassium supplementation is required, an oral liquid preparation should be used rather than enteric-coated potassium salts.

There have been several reports, published and unpublished, concerning nonspecific small-bowel lesions consisting of stenosis, with or without ulceration, associated with the administration of enteric-coated thiazides with potassium salts. These lesions may occur with enteric-coated potassium tablets alone or when they are used with nonenteric-coated thiazides, or certain other oral diuretics.

These small-bowel lesions have caused obstruction, hemorrhage, and perforation. Surgery was frequently required, and deaths have occurred.

Available information tends to implicate enteric-coated potassium salts, although lesions of this type also occur spontaneously. Therefore, coated potassium-containing formulations should be administered only when indicated and should be discontinued immediately if abdominal pain, distention, nausea, vomiting, or gastrointestinal bleeding occurs.

Patients with known sulfonamide sensitivity may show allergic reactions to Lasix (furosemide).

Precautions—As with any potent diuretic, electrolyte depletion may occur during therapy with Lasix (furosemide), especially in patients receiving higher doses and a restricted salt intake. Electrolyte depletion may manifest itself by weakness, dizziness, lethargy, leg cramps, anorexia, vomiting, and/or mental confusion.

Asymptomatic hyperuricemia can occur and gout may rarely be precipitated. Reversible elevations of BUN may be seen. These have been observed in association with dehydration, which should be avoided, particularly in patients with renal insufficiency.

When parenteral use of Lasix (furosemide) precedes its oral use, it should be kept in mind that cases of tinnitus and reversible hearing impairment have been reported. There have also been some reports of cases in which irreversible hearing impairment occurred. Usually, ototoxicity has been reported when Lasix (furosemide) was injected rapidly in patients with severe impairment of renal function at doses exceeding several times the usual recommended dose and in whom other drugs known to be ototoxic were often given. If the physician elects to use high dose parenteral therapy in patients with severely impaired renal function, controlled intravenous infusion is advisable (for adults, it has been reported that an infusion rate not exceeding 4 mg Lasix [furosemide] per minute has been used).

Increases in blood glucose, and alterations in glucose tolerance tests with abnormalities of the fasting and two-hour postprandial sugar have been observed, and rare cases of precipitation of diabetes mellitus have been reported.

Lasix (furosemide) may lower serum calcium levels, and rare cases of tetany have been reported.

Patients receiving high doses of salicylates, in conjunction with Lasix (furosemide) may experience salicylate toxicity at lower doses because of competitive renal excretory sites.

Diuretics such as furosemide may enhance the nephrotoxicity of cephaloridine. Therefore, Lasix (furosemide) and cephaloridine should not be administered simultaneously.

Sulfonamide diuretics have been reported to decrease arterial responsiveness to pressor amines and to enhance the effect of tubocurarine. Great caution should be exercised in administering curare or its derivatives to patients undergoing therapy with Lasix (furosemide), and it is

advisable to discontinue Lasix (furosemide) for one week prior to any elective surgery.

Adverse Reactions—Various forms of dermatitis, including urticaria and rare forms of exfoliative dermatitis, erythema multiforme, pruritus, paresthesia, blurring of vision, postural hypotension, nausea, vomiting, or diarrhea.

Anemia, leukopenia, aplastic anemia, and thrombocytopenia (with purpura). Rare cases of agranulocytosis which responded to treatment.

In addition, the following rare adverse reactions have been reported; however, relationship to the drug has not been established with certainty: sweet taste, oral and gastric burning, paradoxical swelling, headache, jaundice, thrombophlebitis and emboli and acute pancreatitis.

Lasix (furosemide)-induced diuresis may be accompanied by weakness, fatigue, lightheadedness or dizziness, muscle cramps, thirst, increased perspiration, urinary bladder spasm, and symptoms of urinary frequency.

Dosage and Administration ADULTS

The usual adult dose of Lasix (furosemide) is 20 to 80 mg given as a single dose.

If the diuretic response with a single dose of 20 to 80 mg is not satisfactory, the following schedule should be used: Increase this dose by increments of 20 or 40 mg not sooner than 6 to 8 hours after the previous dose until the desired diuretic effect has been obtained. This individually determined single dose should then be given once or twice daily. The dose of Lasix (furosemide) may be carefully titrated up to 600 mg per day in those patients with severe clinical edematous states.

With doses exceeding 80 mg/day and given for prolonged periods, careful clinical and laboratory observations are particularly advisable.

Hypertension—The usual dose of Lasix (furosemide) is 40 mg twice daily both for initiation of therapy and for maintenance. Careful observations for changes in blood pressure must be made when this compound is used with other antihypertensive drugs, especially during initial therapy. The dosage of other agents must be reduced by at least 50 percent as soon as Lasix (furosemide) is added to the regimen to prevent excessive drop in blood pressure. As the blood pressure falls under the potentiating effect of Lasix (furosemide), a further reduction in dosage, or even discontinuation, of other antihypertensive drugs may be necessary. It is further recommended, if 40 mg twice daily does not lead to a clinically satisfactory response, to add other hypotensive agents, e.g., reserpine, rather than to increase the dose of Lasix (furosemide).

INFANTS AND CHILDREN

Pediatric Administration: The usual initial dose of oral Lasix in infants and children is 2 mg/kg body weight, given as a single dose. If the diuretic response is not satisfactory after the initial dose, dosage may be increased by 1 or 2 mg/kg not sooner than 6 to 8 hours after the previous dose. Doses greater than 6 mg/kg body weight are not recommended.

For maintenance therapy in infants and children, the dose should be adjusted to the minimum effective level.

How Supplied—Lasix Tablets 40 mg (furosemide) supplied as white, round, monogrammed, scored tablets.

Lasix Tablets 20 mg (furosemide) supplied as white, oval, monogrammed tablets.

Note: Dispense in dark containers. Exposure to light may cause slight discoloration which, however, does not alter potency.

Additional Information

Toxicology

The acute toxicity of Lasix (furosemide) has been determined in mice, rats, and dogs. In all three animal species, the oral LD₅₀ of Lasix (furosemide) exceeded 1000 mg/kg of body weight, while the intravenous LD₅₀ ranged from 300 to 680 mg/kg. Intragastric injection of the drug in newborn rats resulted in an LD₅₀ of 380 mg/kg.

The acute toxicity of high doses of Lasix (furosemide) was characterized by convulsions, paralysis, and collapse. Surviving animals often became dehydrated and depleted of electrolytes due to the diuresis induced by Lasix (furosemide). In the newborn rats, intragastric injection of the drug caused hyperactivity and anorexia.

Chronic toxicity studies with Lasix (furosemide) were done in rats and dogs. In a one-year study in rats, renal tubular degeneration occurred, with all doses higher than 50 mg/kg (4 times the maximal recommended human dose of 600 mg per day). A six-month study in dogs revealed calcification and scarring of the renal parenchyma at all doses above 10 mg/kg (83 percent of the maximal recommended human dose of 600 mg per day).

Reproductive Studies

The effects of Lasix (furosemide) on embryonic and fetal development and on pregnant dams were studied in mice, rats, and rabbits.

Lasix (furosemide) caused unexplained maternal deaths and abortions in the rabbit when 50 mg/kg (4 times the maximal recommended human dose of 600 mg per day) was administered between days 12 to 17 of gestation. In a previous study the lowest dose of only 25 mg/kg (2 times the maximal recommended human dose of 600 mg per day) caused maternal deaths and abortions. In a third study, none of the pregnant rabbits survived a dose of 100 mg/kg. Data from the above studies indicate fetal lethality which can precede maternal deaths.

The results of the mouse study and one of the three rabbit studies also showed an increased incidence of hydronephrosis (distention of the renal pelvis and, in some cases, of the ureters) in fetuses derived from treated dams as compared to the incidence in fetuses from the control group.



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cancer show a female predominance but only by a 2 to 1 ratio. There are two separate clusters by sex and age distribution; again, the lesion occurs in females two decades earlier. It is of interest that no cancers were found in patients of either sex in the 50s and only one in the 40s. These are the two decades in which nodular goiter, follicular adenoma and thyroiditis are most frequently encountered.

Table 3 compares the frequency of the histologic types found in nodular goiters in this study with that reported by Vieth from Peter Bent Brigham. In spite of the different geographical location and different period of time, the similarity in the frequency of the histologic types is striking. The only difference is that the frequency of thyroiditis is greater in this series or 12% compared to 5% at Peter Bent Brigham Hospital. This probably is due to the fact that the diagnosis of thyroiditis is made more frequently now. The majority of the patients with thyroiditis are not operated on, but that is not reflected in a review of thyroid surgery.

Table 4 compares the histologic classification of cancers found in this series with that of Vieth's series. Geissinger³ at the University of Virginia points out that the vast majority of papillary adenocarcinomas of the thyroid contain some follicular component and that only a few patients can be classified as having "pure papillary" carcinoma. These are the findings in the present series and they are listed as such with two pure papillary and seven mixed papillary and follicular carcinomas.

The pure papillary and mixed papillary and follicular carcinoma constituted 60% of this series. The two pure papillary cancers occurred in a 17-year-old girl and a 30-year-old woman. The seven mixed papillary and follicular cancers occurred in three women aged 19, 23 and 30 years and four men aged 31, 31, 37 and 45 years. In each instance, the initial treatment was total lobectomy and removal of the isthmus. In some instances, part of the opposite lobe was removed. In two cases, further histologic study indicated further surgical treatment. In both instances, the opposite lobe was removed and a modified node dissection was carried out. The three follicular carcinomas all occurred in older patients who were 64- and 67-year-old women and a 66-year-old man. All were large, meaty tumors and all were locally invasive. The undifferentiated anaplastic carcinoma occurred in a 65-year-old woman and the two lymphomas both occurred in older women who were 64 and 76 years old.

Forty patients (22%) were operated on for treat-

ment of thyrotoxicosis. Thirty-three had diffusely hyperplastic glands and seven had nodular toxic goiters. The nodular toxic goiters tended to occur in the older-age decades. Levitt⁴ felt that the various diseases of the thyroid are not separate conditions but are merely successive stages in a single-disease process. He reviewed 2,114 consecutive patients undergoing thyroidectomy at the New End Hospital in Hampstead, England. From their histologic characteristics, they were classified as follows:

	<i>No of Cases</i>
Lymphoid	704
Epithelial hyperplasia	706
Adenoma	437
Colloid goiter	224
Malignant growths	32
Cysts	9
Tuberculosis	2
	2,114

The substance of this study is primarily concerned with the 1,410 patients in the first two groups, i.e., the lymphoid and epithelial hyperplastic groups. Since the normal thyroid consists almost entirely of epithelial tissue, the degree of diminution of the epithelial element can be judged as an index of its pathological deterioration. Consequently, Levitt assembled the 1,410 cases, placing those with the greatest amount of pure epithelial hyperplasia at one end of the spectrum and those with the greatest amount of fibrous tissue at the other end. He describes the six stages in the transition, as follows:

1. *Epithelial Hyperplasia.* The epithelial tissue is intensely hyperplastic with no lymphoid tissue and minimal colloid.

2. *Lympho-epithelial Hyperplasia.* The epithelial tissue is hyperplastic, but lymphoid tissue is present as perivascular collections of lymphocytes. Colloid is minimal and there is no fibrosis.

3. *Focal Lymphoid Hyperplasia.* The epithelial tissue is still hyperplastic but less diffusely distributed. Lymphoid tissue is aggregated in discrete areas and germinal centers are present. Colloid is increased and there is fibrosis.

4. *Diffuse Lymphoid Hyperplasia.* The epithelial tissue is focal and hypoplastic. Lymphoid tissue is the striking feature and is diffusely distributed with prominent germinal centers.

5. *Fibrolymphoid Hyperplasia.* Hashimoto's Disease. The epithelial cell masses are few and focal in distribution. Lymphoid tissue is still the dominant feature and is arranged diffusely. Fi-

TABLE 5

40 THYROTOXIC AND 16 THYROIDITIS PATIENTS CATEGORIZED BY AGE AND SEX ACCORDING TO LEVITT'S SIX STAGES OF TRANSITION

	Sex	10-19	20-29	30-39	40-49	50-59	60-69
<i>Thyrotoxicosis</i>							
1. Epithelial hyperplasia	M 7	I	2	3	I		
2. Lympho-epithelial hyperplasia	F 28	4	1N 7	5	1N 6	4	4N 1N 2
3. Focal lymphoid hyperplasia	M 1		I				
	F 4	I		I	I	I	
<i>Thyroiditis</i>							
4. Diffuse lymph. hyperplasia	M 0						
	F 5	1		1	I	2	
5. Fibrolymphoid (Hashimoto's)	M 0						
	F 10		1	2	4	3	
6. Fibrosis granulomatous	M 0						
	F I						I

The number followed by the letter "N" denotes the number of patients with nodular toxic goiter.

brous tissue is trabecular and interstitial and giant cells, as well as Hurthle cells, are present. Endarteritis is seen in the larger vessels.

6. *Fibrosis*. Riedel's Disease. The epithelial cells are atrophied and isolated by intense deposition of fibrous tissue. There is much less lymphoid tissue. Giant cells, as well as endarteritis, are present.

Table 5 categorizes the 40 thyrotoxic patients as well as the 16 thyroiditis patients according to Levitt's six stages with relation to age and sex. The pathologists at St. Joseph Hospital do not differentiate between pure epithelial hyperplasia and lympho-epithelial hyperplasia. Hence, these two are grouped together. The incidence of nodular toxic goiter is noted among the 28 women in this category by age and sex, with the small number followed by the letter "N." Five patients distinctly fell into the Focal Lymphoid Hyperplasia group. Among the 16 patients with thyroiditis, five fell into the Diffuse Lymphoid Hyperplasia category, ten clearly fell into the Hashimoto's group and one was diagnosed as having granulomatous thyroiditis. This patient demonstrated all the features described in the final phase except that the pathologic changes were limited to the thyroid gland rather than the fibrosis extending beyond the thyroid capsule.

Hypercalcemia of thyrotoxicosis^{5,6} was noted in one of the 40 thyrotoxic patients.

CASE REPORT

A 51-year-old woman with long-standing rheumatoid arthritis was admitted in July, 1967 with boils under her right arm and right breast, weakness and arthritis

of all major joints. A goiter was noted on examination. She was found to have a protein-bound iodine level of 11.6 $\mu\text{g}/100\text{ ml}$ and a T3 uptake of 58.5. She was treated with 80 mg of methimazole (Tapazole) daily, solu cortef and antibiotics. Fever and mental confusion continued. Laboratory studies disclosed the following values: serum calcium, 13.1 mg/100 ml; serum phosphorus, 1.6 mg/100 ml; blood urea nitrogen (BUN), 21 mg/100 ml; serum sodium, 141 mEq/liter; and serum potassium, 3.0 mEq/liter. Serum alkaline phosphatase value was 5.4 Bodansky units/100 ml. Tubular reabsorption of phosphorus was reported as 64% and 90%. She was suspected of having a parathyroid adenoma as well as thyrotoxicosis.

On July 20, 1967, a subtotal thyroidectomy was carried out. A nodular toxic goiter weighing 55 gm was removed. Sections were taken at 2 mm intervals throughout the entire specimen. No parathyroid tissue was found. The day after surgery, serum calcium value was 11.2 mg/100 ml and serum phosphorus concentration was 3.4 mg/100 ml. On August 11, these values were calcium, 10.6 mg/100 ml; phosphorus, 2.6 mg/100 ml; and PBI, 9.6 $\mu\text{g}/100\text{ ml}$.

She was next readmitted in December, 1971 with chronic draining sinuses of the perineum and buttocks and arthritis. On this admission, these values were calcium, 9.6 mg/100 ml; phosphorus, 3.7 mg/100 ml; BUN, 16 total proteins 6.2 with albumin, 3.2; globulin, 3.0; PBI, 5.9 $\mu\text{g}/100\text{ ml}$.

Because of this case, the remaining 39 patients with thyrotoxicosis were reviewed regarding calcium and phosphorus levels. Prior to 1972, the calcium determinations were done with the flame photometer. After that time, the autoanalyser was used. A serum calcium level of 10.5 mg/100 ml is accepted as the upper limit of normal. Of the other 39 thyrotoxic patients, calcium determinations were done on 24. Of these, four had levels between 10.0 mg/100 ml and 10.5 mg/100 ml; the

remaining 20 patients all had calcium levels of less than 9 mg/100 ml.

COMPLICATIONS

There were no deaths. The vast majority of thyroidectomy patients were discharged between their second and fifth postoperative day with an entirely uneventful postoperative course. One patient had permanent voice changes after one recurrent laryngeal nerve was intentionally sacrificed because it was involved with carcinoma. One patient had bilateral cord paralysis after removal of a 200 gm bilateral nodular goiter. By the 11th postoperative day, the left cord began to function and ultimately full function recurred in both cords. Three other patients had transient hoarseness. There were no instances of permanent parathyroid injury.

Five patients experienced some problem with hypocalcemia. All five had positive Chvostek's sign. All were treated with intravenous calcium. Some needed oral calcium and vitamin D. One had transient tetany and one had transient stridor. All were discharged without symptoms of hypocalcemia.

DISCUSSION

The relative infrequency of thyroid surgery is demonstrated by this study and in the other studies referred to in this paper. This relative infrequency reflects a high degree of selectivity of patients undergoing thyroid surgery and is essentially the same for the different parts of this country. Thyroid cancer is encountered even less frequently or in about 1% of all malignancies.⁷ Consequently, there are not large series to be reported.

Scans have demonstrated their usefulness in evaluating nodular thyroids. It is noted in this series that 14% of solitary cold nodules and 14% of patients with multiple cold nodules proved to have cancer at surgery.

The surgical approach to patients with solitary cold nodules is to remove the entire lobe and isthmus and have it examined by frozen section. If it contains a papillary or mixed papillary-follicular (all of the younger patients in this study), a subtotal lobectomy is carried out on the opposite side. Node dissections have been limited to those patients with histologic evidence or at least a high degree of suspicion of nodal metastases. These node dissections varied from that described by Crile⁸ to that described by Marchetta.⁹ In no instance was a classical neck dissection done. The rationale or justification for this approach with well differentiated carcinomas is greatly supported by the excellent series from the University of Iowa and the

University of North Carolina reported by Thomas and Buckwalter.⁷

The relationship of thyrotoxicosis with thyroiditis is interesting. Although it is quite small, however, the present series fails to support the stage-to-stage transition described by Levitt. There are a fair number of cases of thyroiditis occurring in the younger decades and a fair number of patients with thyrotoxicosis occurring in the older decades.

The existence of hypercalcemia of thyrotoxicosis is not generally recognized as was true with the case presented here. It was thought that this patient was suffering from both hyperparathyroidism and hyperthyroidism until it was proved without doubt that this was not the case. Review of the remaining thyrotoxic patients failed to reveal any others with elevated calcium levels.

Hypercalcemia of thyrotoxicosis has been reported as an uncommon or rare occurrence. Prior to 1966, only a handful of cases had been reported. Baxter and Bondy⁵ of Yale University reported 19 cases including two with parathyroid adenomas among 302 patients with hyperthyroidism. Bortz *et al*⁶ reported nine patients, including two with parathyroid adenomas. They stress the importance of a low tubular resorption of phosphate (50% or less) in making the diagnosis preoperatively. The hypercalcemia of thyrotoxicosis returns to normal as the thyrotoxicosis is brought under control.

The complication rate in reported series of thyroid surgery is uniformly low. This fact should be considered when 14% of patients with a solitary cold nodule and 14% of patients with multiple cold nodules were found to have carcinoma of the thyroid. The low complication rate also should be considered when selecting a form of therapy for patients with thyrotoxicosis.

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Apical Lung Cancer

THE SAD STORY of lung cancer is summed up by this statement: "Cancer of the lung is not mainly a therapeutic problem but, rather, an epidemiological dilemma."

Cancer of the lung is a lethal disease because when first seen, most patients' cancers are nonresectable. Of 272 patients seen in the Ellis Fischel State Cancer Hospital (EFSCCH) from 1968 to 1974 with a diagnosis of lung cancer, 182 (67%) were deemed inoperable because of advanced disease. Only 90 patients (33%) had definitive surgery in the form of lobectomy or pneumonectomy. Of the resectable cases, ten (11%) have survived three years or more and the average overall survival is 18 months. Of the 178 cases treated with megavoltage radiation, only ten (5%) have survived three years or more and the average survival is six months. According to the American Cancer Society, the estimated new incidences of lung cancer in the United States for 1975 is 91,000 of which 19,000 are women and 72,000 are men.¹

Cancer of the lung is notoriously asymptomatic in the early cases, and the so-called "cigarette cough" masks the early clinical presentation of the disease. The symptoms of cough with hemoptysis,

weight loss, chest pains, pneumonia and palpable adenopathies are the tell-tale signs of advanced lung cancer. Short of an exploratory thoracotomy, many cases are not diagnosed by the more benign diagnostic procedures. Of the 249 bronchoscopic examinations performed on cases with a final diagnosis of lung cancer in EFSCCH, 85 had no bronchoscopic findings, 98 had negative histology in the presence of a visualized lesion and only 56 had a positive histological diagnosis of lung cancer. Eighty-one scalene node biopsies were done from 1968 to 1974 and only 17 (21%) revealed positive histology (Figs. 1, 2 and 3).

Pain in the shoulder radiating to the arm is usually due to benign abnormalities of the cervical spine or shoulder, but it also may be a symptom of cancer in the thoracic inlet or superior sulcus. Pressure or involvement of the brachial plexus and sympathetic nerve tracts, including the stellate ganglion, will produce a symptom complex known as "Pancoast Syndrome." As cited by Shaw *et al.*,² Pancoast in 1932 described the syndrome under the title of "Superior Pulmonary Sulcus Tumors" characterized by (1) pain in the shoulder and arm with muscular atrophy; (2) Horner's syndrome (constriction of the pupil, enophthalmos and ptosis of the upper eyelid) and some atrophy and absence of sweating, as well as increased skin temperature on the affected side of the face; and (3) infiltra-

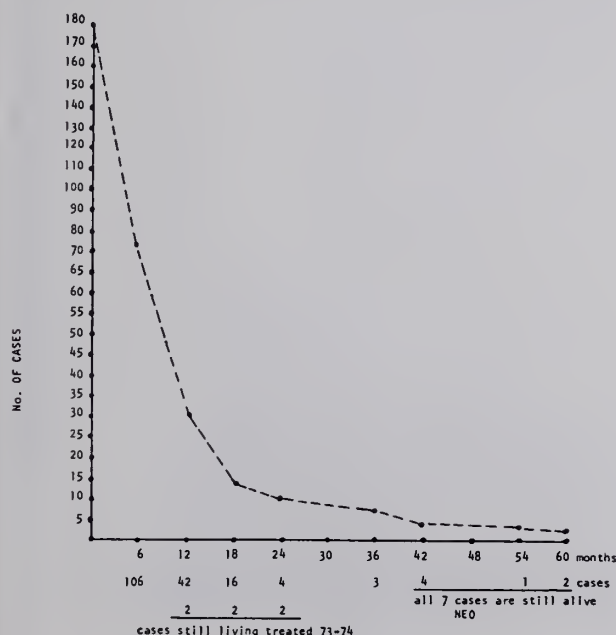


Fig. 1 Five-year survival curve of 178 histologically proven lung cancers treated with radiotherapy in the EFSCCH from 1968 to 1974.

Apical lung cancer previously has been considered inoperable because of early involvement of the adjoining ribs and vertebral bodies. Recent studies, however, have shown that when diagnosed early, many cases can be salvaged by preoperative irradiation followed by en bloc resection or interstitial radioactive implantation. The cases seen in the Ellis Fischel State Cancer Hospital (EFSCCH) from 1968 to 1974 reflect the need for earlier diagnosis and constant awareness of this condition. Dr. Canoy is Director of Radiotherapy at EFSCCH and the Cancer Research Center.

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tion of the soft structures and destruction of the bone by the tumor. With few exceptions, these apical tumors are bronchogenic carcinoma originating from the terminal bronchi invading the soft tissues and bony thorax. The few exceptions in which this syndrome may be found are due to branchial cleft tumors; osteogenic sarcoma; tumors of the regional ganglia; metastatic cancer in the region; neoplasm of the cord, cervical vertebrae or rib; trauma in this region; inflammatory lesions such as fibrosing pneumonitis in tuberculosis; and,

rarely, parasitic diseases like hydatid cysts (Figs. 4, 5 & 6.)

Pain in the supraclavicular area or shoulder radiating to the arm accompanied by neurological sensory changes in the upper extremity are the prominent and early symptoms of these thoracic inlet tumors. Unfortunately, this is regarded by the layman and many times by the physician as pain due to arthritis or peritendinitis. The presence of a severe pain associated with a pronounced Horner's syndrome, a palpable supraclavicular mass and obvious destruction of the adjoining ribs and vertebral bodies in the radiographs are late manifestations of the disease. In most cases of tumors in the superior sulcus, the lesion is readily visualized in routine radiographs of the chest: PA, AP lordotic and a lateral film. In some cases, the lesion is difficult to demonstrate in the radiographs. Even if it is seen, it is often attributed to pleural thickening.^{3, 4}

Additional procedures that may prove useful in diagnosis include apical tomography and oblique

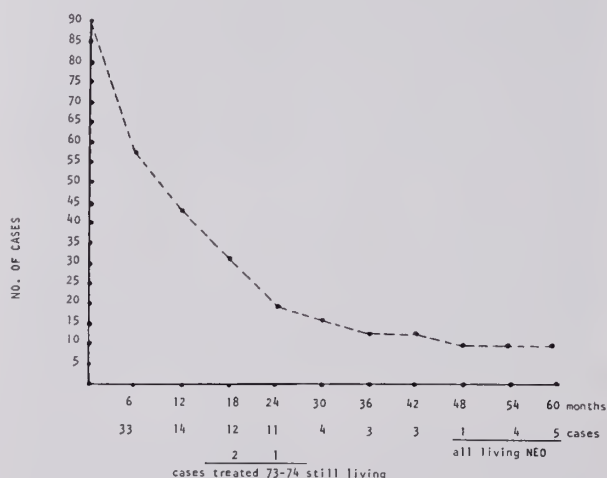


Fig. 2 Five-year survival curve of 90 cases of histologically proven cancer of lung treated with definitive surgery from 1968 to 1974 in EFSCH.

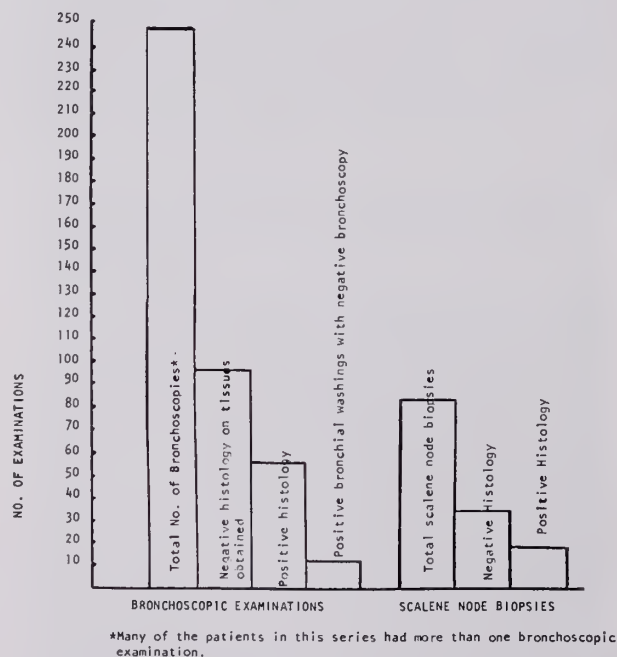


Fig. 3 Two hundred and forty-nine bronchoscopic examinations and 81 scalene node biopsies on histologically proven lung cancer in the EFSCH from 1968 to 1974.



Fig. 4 Seventy-year-old man with a six-months' history of right shoulder pain. Chest X-rays show a mass in the apex of the right lung with destruction of the first and second ribs. Patient had Horner's syndrome.

radiographs of the cervicothoracic spine and ribs, since 29% of patients are reported to have radiographically demonstrable destructive lesions in the first three ribs or thoracic vertebrae. There are reported cases where the diagnosis has been facilitated by a bone scan.⁵ Constant awareness of the condition is often the key to the early diagnosis of apical lung cancer. In many instances, because of the shoulder pain, the patient will seek an earlier medical consultation. This is particularly important in view of several recent reports of favorable results following combined use of external and interstitial radiation followed by resectional surgery.

Shaw *et al*² reported 18 patients with cancer in the superior sulcus treated by means of presurgical irradiation of 3,000 rads followed by an en bloc resection of the involved chest wall, which usually included portions of the first three ribs, portions of the upper thoracic vertebrae and their transverse processes, the intercostal nerves, the lower trunk of the brachial plexus and the stellate ganglion and the upper fibers of the sympathetic chain, together with the involved lung either by means of lobectomy or segmental resection four to six weeks after completion of radiotherapy. Of these, five patients were alive and well 15 to 57 months later. The objects of the subcancerocidal dose of radiation are (1) to localize the lesion by destroying the tumor cells at the periphery making an inoperable lesion resectable, (2) to inhibit dis-

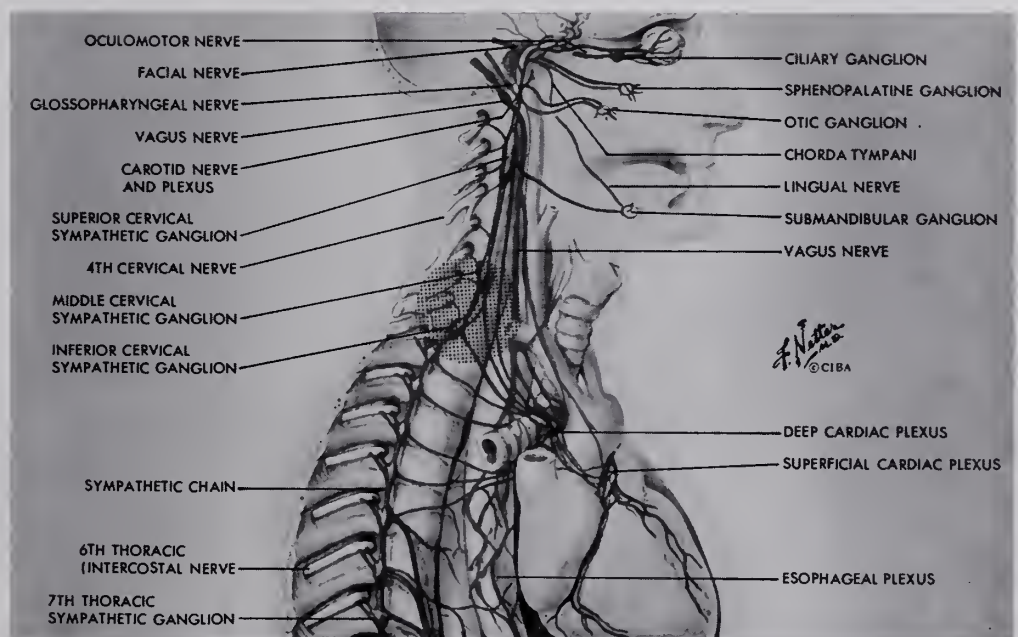


Fig. 5 Lateral film of neurological involvement in Pancoast's tumor.

semination by sclerosis of the vascular bed and lymphatics and (3) to damage the viability and reproductivity of the malignant cells left behind at the time of operation. A full cancerocidal dose of 6,000 rads carries the risk of increased radiological and surgical morbidity and mortality.

Hilaris *et al*⁶ of Memorial Sloan Kettering Cancer Center reviewed 116 patients with apical lung cancer treated at the Memorial Hospital. Twenty-seven patients had preoperative irradiation of 4,000 rads in four weeks. In seven patients (24.4%), complete resection of the tumor was possible. Nine patients had gross chest wall invasion and only the diseased lung tissue was removed. The residual tu-

Fig. 6 Anatomical drawing of neurological involvement of Pancoast's tumor.



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TABLE 1
APICAL LUNG CANCERS SEEN IN ELLIS FISCHER STATE CANCER HOSPITAL FROM 1963 TO 1974

	Age/Sex	Histology	Presenting Symptoms	Mts. Prior to Diagn.	Other Associated Symptoms	Horner's Syndrome	Destruction of Vertebral Body and Ribs	Metastasis	Treatment	Survival From Dx to Death (mts)
1	69/M	Epidermoid carcinoma	Burning pain: left supraclav and axillary and arm	2	Hemoptysis	Negative	Negative	None	RT-6,000 r 20 F	12
2	53/M	Epid ca	Rt supraclav pain, radiating to arm; tingling sensation and numbness right forearm and hand	12	None	Positive	Negative	None	Preop RT 2,000r/9F followed by rt upper lobectomy + postop RT 4,500 r 18 F	6
3	63/M	Epid ca	Lt supraclav pain, radiating to scapula and arm	6	None	Positive	Negative	Positive supraclav nodes	3779 r 19 F	Patient still living post RT 27
4	74/M	Undiff ca	Rt shoulder pain	4	None	Positive	Positive	Positive supraclav nodes	4,400 r 13 F	9
5	64/M	Undiff ca	Rt shoulder pain	6	Hemoptysis	Positive	Negative	None	4,000 r 16 F	3
6	61/M	Undiff ca	Rt shoulder pain	2	Chronic cough	Negative	Positive	Positive axillary nodes and nodule in thigh	4,000 r 14 F	3
7	70/M	Undiff ca	Rt supraclav pain; tingling sensation with numbness of rt upper extremity Pain in the left supraclav area radiating to the arm	6	30 lb weight loss and chronic cough	Positive	Positive	Positive rt supra- clav node	3,000 r 12 F	3
8	60/F	Positive cytology bronchial washings; scalene node and needle biopsy negative		12	None	Positive	Negative	None	6,000 r 28 F	12
9	72/M	Positive cytology bronchial washings	Rt shoulder and scapula pain radiating into rt arm	12	None	Positive	Positive	None	6,000 r 22 F	5
10	85/M	Positive cytology bronchial washings; bronchoscopy negative; scalene biopsy	Left supraclav pain radiat- ing to arm	2	Productive cough	Positive	Positive	None	4,000 r 20 F	18

mor in the chest wall and in the paravertebral area was implanted with radioactive seeds. The total operability rate was 59%. Of the eleven nonresectable tumors, ten had interstitial radioactive implantation. In 57 patients without any preoperative irradiation, only five patients (8.8%) had complete resection and 13 patients had incomplete resection (24.5%), giving a total operability rate of 33.3% compared to the 59% with preoperative irradiation. Of the 39 patients with unresectable tumors, 34 had interstitial implantation and 24 of these, in addition, had postoperative external irradiation; five received postoperative irradiation without any interstitial implantation. Addition of preoperative irradiation showed no statistical difference in postoperative mortality and morbidity compared to the nonradiated cases. Patients who received preoperative irradiation followed by complete resectional surgery showed an actuarial survival at five years of 22% against 15% treated by surgery alone. In the 29 patients treated by external irradiation alone, the five-year survival was only 3.5%. No benefit was observed from preoperative irradiation in patients whose tumor was incompletely removed following surgery (Table 1).

Generally, the reported incidence of carcinoma in the pulmonary apex in relation to the overall incidence of lung cancer is placed at 3%. This is in agreement with this retrospective study of 110 cases out of 282 lung cancers seen in EFSCH from 1968 to 1974. The presenting symptom is very striking: right supraclavicular or shoulder pain radiating to the upper extremity. One of the patients had a gradual onset and increase of pain in the left supraclavicular area and upper chest, radiating to the left arm for 12 months before the final diagnosis was made. She was told that the pains were arthritic following an x-ray of the shoulder. Short of exploratory thoracotomy, histological diagnosis is difficult to establish. Bronchoscopy, as expected, is nondiagnostic and rarely do the bronchial washings reveal malignant cells. Most of the diagnoses were made either from a scalene node biopsy, needle biopsy or exploratory thoracotomy. The bad prognosis of a poor histology is reflected

by the poor survival of the undifferentiated types. Strangely, however, the longest survivor in this series is a patient with an undifferentiated carcinoma with a positive scalene node. Only one had incomplete resection after a preoperative irradiation of 2,000 rads. This was followed by another course of postoperative irradiation of 4,500 rads which apparently were of no benefit to the patient.

SUMMARY

Because of the involvement of the lower cervical and upper thoracic nerve roots of the brachial plexus, cancer of the apex of the lung or superior sulcus or thoracic inlet readily produces pain in the supraclavicular area and right shoulder radiating to the arm or entire upper extremity associated with some sensory changes. While a patient may be nonchalant about a "cigarette cough" which could be the early clue of a lung cancer, an increasingly nagging pain and discomfort in the shoulder and arm, like the proverbial toothache, may force a patient to seek early medical consultation. Early recognition of this condition may result in a long-term survival. Involvement of the chest wall, ribs, vertebrae and nerves is no longer considered a criterion for inoperability. There is ample evidence that early recognition, preoperative irradiation and complete en bloc resection results in a high degree of salvage of this tumor which once had the anathema of being lethal at any stage of the disease. The series presented reflects the need for early recognition of this disease.

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Successful Pregnancy in a Patient With a Single Diseased Kidney

Case Report

THE RISK involved in pregnancy for the patient with only one kidney depends solely on the status of her remaining kidney.¹ There is fairly uniform agreement that, generally, the patient with a lone normal kidney can carry a pregnancy without undue fear that the remaining kidney will be damaged as a result of pregnancy.¹⁻³ Dippel stated that pregnancy should not be allowed after nephrectomy in the presence of a remaining damaged kidney.³ In view of this, it is considered useful to present a unique case of a successful pregnancy in a patient with a single, severely diseased kidney.

CASE REPORT

A 19-year-old black woman, G 2, P 0, Ab 1, was admitted to our obstetric service on her initial prenatal visit at 14 weeks of gestation for evaluation of her renal function.

She had had numerous hospitalizations in the past for problems related to anomalies of the urinary tract. Her first hospitalization was in 1959 at the age of four years when she was found to have an enormously dilated left ureter, the distal end of which was atretic. The left kidney was only a small, cystic renal remnant. There was an associated right hydronephrosis and hydroureter. A left ureteronephrectomy and a right nephrostomy were done. She did well postoperatively, and the nephrostomy was closed prior to her discharge.

In April, 1962, she was again hospitalized because of right flank pain. The diagnosis at this admission was right ureteral stricture and congenital bladder neck ob-

struction with secondary hydroureter and hydronephrosis. Operations performed at this time were a Y-V plasty of the bladder neck, a partial right ureterectomy and a right uretral anastomosis and a cutaneous vesicostomy. In October, 1963, the vesicostomy was closed.

She had several intervening admissions because of pyelonephritis before being admitted in 1972 with pyelonephritis at 16-weeks gestation, and massive right hydronephrosis and hydroureter. Her blood urea nitrogen (BUN) value was 71 mg/100 ml, serum creatinine value was 2.4 mg/100 ml and temperature was 101.6 F. After several days of antibiotics administered intravenously, a right cutaneous ureterostomy and a therapeutic abortion were done at the same time. Permanent sterilization was recommended, but the patient elected to use oral contraceptives. She later discontinued the pills and an IUD was inserted. The IUD was expelled and the patient became pregnant.

During this admission, her serum creatinine value was 0.8 mg/100 ml; BUN, 11 mg/100 ml; and creatinine clearance, 78 cc/min. Urine culture on catheterized specimen showed *E. Coli* less than 10,000 colonies. A nephrologist was consulted and felt that our patient had normal renal function for a patient with one kidney. After extensive discussion with the patient about the risks involved with her pregnancy, it was decided that the patient's psyche would not tolerate another therapeutic abortion. A team consisting of an obstetrician, a nephrologist, a urologist and a pediatrician was formed for a close follow-up of the patient during her pregnancy. She was readmitted at 26 weeks of gestation because of pyelonephritis. Urine culture showed proteus morganii colonies too numerous to count. She was treated with cephalothin sodium (Keflin) and responded well. Her BUN and serum creatinine remained normal and her creatinine clearance was 111 cc/min. One week after discharge, she was again readmitted with pyelonephritis. A bulging mass in her right flank was noted.

Catheterization at this time revealed a urine residual of 1,000 cc. After consultation with the urologist, a retrograde pyelogram was done to determine the extent of the hydroureter and hydronephrosis. The hydronephrosis was so marked (Fig. 1) that it was recommended to terminate the pregnancy, but the patient refused. Urine cultures during this admission were positive for *pseudomonas aeruginosa* and the patient was treated with gentamicine and continuous drainage via foley catheter (Fig. 2). She was discharged two weeks after admission to be followed weekly in the clinic.

This report describes an unique case of a patient with a single, diseased kidney. Despite three bouts of pyelonephritis during her prenatal course, a team consisting of an obstetrician, a nephrologist, an urologist and a pediatrician enabled her to have a successful term pregnancy. The authors are from the University of Missouri-Kansas City School of Medicine and Kansas City General Hospital and Medical Center.



Fig. 1 The patient's remaining, markedly hydronephrotic right kidney and a catheter in the ureter at 28 weeks of gestation.

At 34 weeks, she was readmitted because of right flank pain and hematuria. Urine culture again showed pseudomonas. She was again treated with gentamicine and responded well. Fetal maturity studies were done during this admission at 35 weeks and showed LS ratio of 2.1, creatinine 2.4 mg/%. Biparietal diameter by ultrasound was consistent with 37 to 38-weeks gestation. An attempt for three days to induce labor was unsuccessful. The patient was delivered of a 2,300 gm male infant, Apgar 9 and 10 at one and five minutes respectively by C-section. A bilateral tubal ligation was done following delivery. The patient and the baby were discharged in a satisfactory condition ten days postsurgery. At six weeks postpartum, her kidney function tests were within normal limits.

DISCUSSION

This patient with a single, markedly diseased kidney, as evidenced by marked hydronephrosis, had a successful pregnancy in spite of three bouts of pyelonephritis during her prenatal course. Continuous drainage to overcome the uterine pressure on the ureter is the most important factor that rendered a successful pregnancy possible. Frequent cultures and prompt treatment are mandatory if



Fig. 2 Cutaneous ureterostomy site with an indwelling foley catheter in place.

the consequences of infection caused by the indwelling ureteral catheter are to be avoided. A multidisciplinary team involved in close observation of the patient and proper interpretation of laboratory data is extremely important in this type of high risk pregnancy.

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Reprints: Charles E. Quinn, M.D.

OB/GYN Dept.

Kansas City General Hospital & Medical Center

24th & Cherry

Kansas City, Mo. 64108

Correction, Please!

In the September, 1973 issue of MISSOURI MEDICINE, an error appeared in the article, "Management of External Small Bowel Fistulas" by Alejandro Horochowski, M.D. On page 525, "incontinence," which is the last word in the article, is incorrect. This last sentence should have read "We have not attempted and do not favor partial bypass of the intestinal contents with bowel in continuity."

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President's Message

When President Gerald Ford first started the influenza vaccination program with the intention of mass vaccination of as many Americans as possible, there was much criticism.

I am old enough to remember the epidemic of 1917-1918 with the terrible morbidity and mortality rate of that time. Fear of any repetition of that dreadful episode is enough to make me applaud the President's decision. So far, there have been no cases of this flu, according to the very latest information from the United States Public Health Service. However, history shows that these epidemics can blow up like a hurricane. If this happens, then the President was thoroughly justified with going ahead with the present influenza program.



Max S. Franklin, M.D.

If the influenza epidemic does not appear, in my opinion, he was still justified in following the advice of his medical advisors. Prevention is the best way of fighting illness. This view is also shared by Dr. Helen Bruce, the Health Commissioner of St. Louis City, and Dr. William Banton, the Health Commissioner of St. Louis County.

As doctors, we are trained to prevent disease as well as to fight it. Almost all of the doctors in this area have signed up to give the vaccinations in the mass programs without charging for their services.

For some obscure reason, some people are fearful of the vaccination. Yet, very few complications or side effects can be expected to occur.

If the mass vaccinations save only one life, it will all be worthwhile. If the epidemic does not occur, at least everything will have been done that could be done to prevent a dreadful catastrophe with great morbidity and mortality rates.



Woman's Auxiliary

"The greatest threat to our country is when people cease to care; The greatest threat to our profession is when its members cease to care."—Anon.

Elections and Legislation will be two vital subjects during the months ahead!

Thought and effort are directed toward the impending election. Simultaneously, concern and preparation for the legislative year absorb our thoughts. The import of the American decision which will be made in the next few weeks is dramatically demonstrated when we endeavor to analyze the records of our potential leaders. Clearly, there is a difference, and every thinking person in medicine must approach the polls informed and determined to vote on issues.



Mrs. George P. Wilson
President

The MSMA Auxiliary strives to keep its members knowledgeable. The timeliness of our Fall State Conference in October mandates emphasis on legislation and politics. Political candidates have been invited to appear throughout the two-day program. A mini-workshop on legislative issues and communication techniques is scheduled. Legislative update by MSMA officers and selected candidates provide the basis for identification and understanding of issues and platforms.

State Legislation Chairman Mrs. Richard C. Hedges represented Missouri at the Legislative Workshop in Washington, D.C. in mid-September. She attended legislative sessions conducted by the staff of the AMA's Washington Office, met with senators and representatives and participated in intensive orientations on developments in the health care field. She brings the newest ideas, information and forecasts from the AMA to Missouri's Auxiliary and will conduct the legislative workshop during the Fall Conference.

The growing concern for the future of medicine has initiated increased interest on the part of our members. They are ready to be involved in support of their husbands' profession. Through the efforts of Mrs. Hedges, one new program is presently emerging. A concerned nucleus of women are monitoring and reporting the five HSA areas in the state. As new awareness of problems gives rise to new attempts to learn, it is our hope that the information gleaned will provide us with a better understanding of the complex dilemmas facing medicine.

The Auxiliary's Fall Conference is approaching. The scope of information available to physicians' spouses at this meeting is diverse and extensive, ranging from medical education to legislation to community and family health. In the process of sharing and exchanging ideas of mutual concern and interest, this meeting provides a creative, personal atmosphere for learning.

Your wife has received the invitation and program through her county auxiliary and our state publication, *Missouri Doctor's Wife*. Encourage her to exercise her membership in the Auxiliary by attending. We promise to make it worth her while.

County Society News

FIRST DISTRICT

COUNCILOR

JOHN N. MARTIN, M.D., ST. JOSEPH

BUCHANAN COUNTY MEDICAL SOCIETY

The annual election and a business meeting of the Buchanan County Medical Society were held following a dinner at the Swiss Chalet in St. Joseph on September 1.

Newly elected officers are Drs. Edmund W. Kline, President-Elect; Carl K. Ness, Vice-President; Charles N. Mullican, Secretary; Gary A. Dyer, Treasurer; and Robert F. Tobin, Board of Censors.

MSMA Delegates named were Drs. Wallace McDonald and Ernest E. Wadlow. Drs. R. Philip Acuff, Gerald E. Fox, Berwyn H. Moen and Gordon S. Paulson were chosen as Alternate Delegates.

Dr. Edward M. Beheler was elected to the Committee on Public Policy. Dr. Edward H. Andres was selected as Trustee for a five-year term. Dr. G. Tyson Carpenter was named to the Executive Secretary Committee.

Dr. Carpenter is now President and Dr. Richard O. Craig is President-Elect. The new officers will be installed at the annual meeting and installation in December.

There was a discussion of plans for the local swine flu vaccine program when the vaccine becomes available, which probably will be in October. Dr. Sharon E. Waggoner, who has been serving as president of the City-County Board of Health, was named city-county health officer to succeed Dr. Robert W. Kieber, who died on June 28.

CARL K. NESS, M.D., Secretary

GRAND RIVER MEDICAL SOCIETY

The Grand River Medical Society met on September 9 at the Chillicothe Country Club.

Richard B. Curnow, M.D. and George Woy, M.D. of Liberty, orthopedic surgeons, were guest speakers and presented an interesting discussion of common pediatric fractures and their treatment.

Sixteen Medical Society members and 13 Auxiliary members were present.

There was a short business meeting at which a nominating committee was named and asked to present a slate of officers for 1977 at the next meeting.

WILLIAM L. FAIR, M.D., Secretary

SECOND DISTRICT

COUNCILOR

J. RUSSELL COMER, M.D., NEW LONDON

CHARITON-MACON-MONROE-RANDOLPH COUNTY MEDICAL SOCIETY

The Chariton-Macon-Monroe-Randolph County Medical Society held its regular monthly meeting in the Library Conference Room at Woodland Hospital in Moberly on September 9.

The program was presented by Dr. C. C. Cohrs who spoke on "Modern Concepts in Allergy and Immunology." Dr. Cohrs recalled that he spoke to the Society on "Allergy and Family Practice" 24 years ago. He has continued to pursue the subject of allergy throughout the years.

Dr. Cohrs pointed out that there has been an increasing interest in immunology and antibodies, and there is a wide difference of opinion between researchers and clinicians. He stated, however, that during the past ten years, allergy and immunology have come considerably closer.

He presented a series of slides covering his subject extensively and provided detailed comments. A discussion-and-answer period followed his presentation.

Those attending the meeting were Drs. Antonio Aguilera, R. L. Bautista, Jose Hori, C. C. Cohrs, T. S. Fleming, J. Will Fleming, Jr., R. V. Thompson, Josephine Baker, L. E. Huber, W. D. Chute and G. R. Hudson, Moberly; P. V. Dreyer, Huntsville; J. E. Campbell, D. E. Eggleston and Gretchen Collins, Macon; F. A. Barnett, Paris; and D. D. Stuart, Brunswick. The five guests at the meeting were Dr. Leopold LaChance of Centralia, and Drs. H. T. Lin, Ruel Miciano, C. H. Lin and C. C. Yang, who have recently joined the staff at Woodland Hospital and Clinic.

The meeting was adjourned by Dr. Eggleston at 8:55 PM.

G. R. HUDSON, M.D., Secretary

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New Members

Robert Anderson, Jr., M.D., 11500 Ambassador Dr., Kansas City 64195, has become a member of Clay County Medical Society. Dr. Anderson is a native of Fort Sill, Okla., received his preliminary education at George Washington University and his M.D. degree at George Washington University in 1970. He specializes in aerospace medicine.

Richard F. Beamon, M.D., Spelman Memorial Hospital, Smithville 64089, has become a member of Clay County Medical Society. Dr. Beamon is a native of St. Joseph, received his preliminary education at the University of Missouri and his M.D. degree at the University of Missouri in 1973. He specializes in emergency medicine.

Arjun Bhattacharya, M.D., 7200 Manchester Rd., St. Louis 63143, has become a member of St. Louis County Medical Society. Dr. Bhattacharya is a native of Nagpur, India, received his preliminary education at Nagpur University and his M.D. degree at Medical College in Nagpur, India in 1961. He specializes in general surgery.

William F. Birkby, M.D., 1502 E. Broadway, Columbia 65201, has become a member of Boone County Medical Society. Dr. Birkby is a native of St. Paul, Neb., received his preliminary education at Creighton University and his M.D. degree at Creighton University in 1973. He is in family medicine.

Harold E. Bland, M.D., 807 Stadium Rd., Columbia 65201, has become a member of Boone County Medical Society. Dr. Bland is a native of Denver, Colo., received his preliminary education at Augustana College and his M.D. degree at the University of Nebraska in 1972. He specializes in pediatrics.

Theodore B. Bownik, M.D., 2700 Hospital Dr., Kansas City 64116, has become a member of Clay County Medical Society. Dr. Bownik is a native of Minneapolis, Minn., received his preliminary education at Rockhurst College and his M.D. degree at the University of Missouri in 1973. He specializes in internal medicine.

Jon E. Browne, M.D., 6306 Morningside Dr., Kansas City 64113, has become a member of Jackson County Medical Society. Dr. Browne is a native of Kansas City, received his preliminary education at the University of Missouri and his M.D. degree at the University of Missouri in 1972. He specializes in orthopaedic surgery.

Lawrence S. Cohen, M.D., 4949 Rockhill Rd., Kansas City 64110, has become a member of Jackson County Medical Society. Dr. Cohen is a native of Newark, N. J., received his preliminary education at Rutgers University and his M.D. degree at New York Medical College in 1961. He specializes in internal medicine and cardiology.

Gary D. Cooper, M.D., Westowne III, Suite 100, Liberty 64068, has become a member of Clay County Medical Society. Dr. Cooper is a native of Elmira, received his preliminary education at the University of Colorado and his M.D. degree at the University of Colorado in 1969. He specializes in internal medicine and gastroenterology.

Gilbert E. Corrigan, M.D., 1402 S. Grand Blvd., St. Louis 63104, has become a member of St. Louis Medical Society. Dr. Corrigan is a native of Ohio, received his preliminary education at Ohio State University and his M.D. degree at Wayne State University in 1962. He specializes in pathology.

Marlou Davis, M.D., 9327 Kocning Circle Dr., Berkeley 63134, has become a member of St. Charles-Lincoln County Medical Society. Dr. Davis was born at Clark Air Base, Philippine Islands, received his preliminary education at Washington University and his M.D. degree at the University of Missouri in 1975. He is in family practice and preventive medicine.

Russell Dieterich, M.D., 1301 Boonslick, St. Charles 63301, has become a member of St. Charles-Lincoln County Medical Society. Dr. Dieterich is a native of Springfield, Ill., received his preliminary education at Knox College and his M.D. degree at the University of Illinois in 1965. He specializes in obstetrics and gynecology.

Charles H. Dougherty, M.D., 3535 S. Jefferson, St. Louis 63118, has become a member of St. Louis County Medical Society. Dr. Dougherty is a native of St. Louis, received his preliminary education at the College of the Holy Cross and his M.D. degree at the University of Rochester in 1973. He specializes in pediatrics.

Joseph Drozda, M.D., 2850 W. Clay, St. Charles 63301, has become a member of St. Charles-Lincoln County Medical Society. Dr. Drozda is a native of Tucson, Ariz., received his preliminary education at Creighton University and his M.D. degree at the University of Nebraska in 1970. He specializes in internal medicine and cardiology.

(Continued on page 584)



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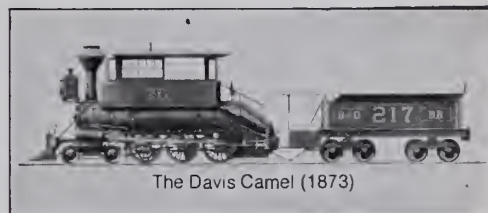
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(Continued from page 582)

Wilfrido C. Feliciano, M.D., 1245 Graham Rd., Florissant 63031, has become a member of St. Louis County Medical Society. Dr. Feliciano is a native of Manila, Philippines, received his preliminary education at the University of the Philippines and his M.D. degree at the University of the Philippines in 1966. He specializes in plastic and reconstructive surgery.

Alejandro Galan, M.D., 525 Couch Ave., St. Louis 63122, has become a member of St. Louis Medical Society. Dr. Galan is a native of Central America, received his preliminary education at St. Cecilia and his M.D. degree at the University of El Salvador in 1970. He specializes in surgery.

Rajendra R. Gavini, M.D., 2838 S. Grand Blvd., St. Louis 63144, has become a member of St. Louis Medical Society. Dr. Gavini is a native of India, received his preliminary education at New Science College and his M.D. degree at Rangaraya Medical College in 1969. He specializes in general surgery.

John Gragnani, M.D., 807 Stadium Rd., Columbia 65201, has become a member of Boone County Medical Society. Dr. Gragnani received his preliminary education at the University of Missouri and his M.D. degree at the University of Missouri in 1974. He is in physical medicine and rehabilitation.

Charles D. Gregorius, M.D., University of Missouri, Columbia 65201, has become a member of Boone County Medical Society. Dr. Gregorius is a native of Columbus, Neb., received his preliminary education at Loras College and his M.D. degree at the University of Nebraska in 1973. He specializes in anesthesiology.

Hemachandra Gunawardhana, M.D., 2100 Madison Ave., Granite City, Ill., received his preliminary education at Amanda College and his M.D. degree at the University of Ceylon in 1965. He specializes in psychiatry.

Richard M. Halford, M.D., 621 S. New Ballas Rd., St. Louis 63141, has become a member of St. Louis Medical Society. Dr. Halford is a native of New York, received his preliminary education at Lafayette College and his M.D. degree at Albert Einstein College in 1967. He specializes in plastic surgery.

Weldon L. Harris, M.D., 18500 E. 27th Street South, Independence 64057, has become a member of Jackson County Medical Society. Dr. Harris is a

native of Fort Worth, Tex., received his preliminary education at Baylor University and his M.D. degree at Kansas University in 1973. He specializes in pediatrics.

John P. Hoehn, M.D., 304 Northland Medical Bldg., St. Louis 63136, has become a member of St. Louis Medical Society. Dr. Hoehn is a native of Missouri, received his preliminary education at Georgetown University and his M.D. degree at St. Louis University in 1968. He specializes in general surgery.

Dennis J. Keithly, M.D., 1502 E. Broadway, Columbia 65201, has become a member of Boone County Medical Society. Dr. Keithly is a native of Canton, received his preliminary education at Culver-Stockton and his M.D. degree at the University of Missouri in 1972. He is in family practice.

Thomas R. Kluzak, M.D., 615 S. New Ballas Rd., St. Louis 63141, has become a member of St. Louis Medical Society. Dr. Kluzak is a native of Illinois, received his preliminary education at St. Procopius College and his M.D. degree at Loyola University in 1974. He specializes in obstetrics and gynecology.

Richard Landy, M.D., 6150 Oakland, St. Louis 63139, has become a member of St. Louis Medical Society. Dr. Landy is a native of Missouri, received his preliminary education at California Institute of Technology and his M.D. degree at St. Louis University in 1972. He specializes in pathology.

Charles Lepley, M.D., P.O. Box 8010, St. Louis 63156, has become a member of St. Louis Medical Society. Dr. Lepley is a native of Finland, received his preliminary education at the University of Minnesota and his M.D. degree at Washington University in 1975. He specializes in administrative and primary care.

David G. Lewis, M.D., 522 N. New Ballas Rd., St. Louis 63141, has become a member of St. Louis Medical Society. Dr. Lewis is a native of Idaho, received his preliminary education at the University of Utah and his M.D. degree at George Washington University in 1973. He specializes in obstetrics and gynecology.

Charles C. Lobeck, M.D., Rt. 4, Columbia 65201, has become a member of Boone County Medical Society. Dr. Lobeck is a native of New Rochelle, N. Y., received his preliminary education at Hobart College and his M.D. degree at the University of Rochester in 1952. He specializes in pediatrics.

Teresita I. Manubay, M.D., 215 Tenco, Kennett 63857, has become a member of Dunklin County Medical Society. Dr. Manubay is a native of the Philippines, received her preliminary education at the University of St. Tomas and her M.D. degree at Far Eastern University in 1969. She specializes in pediatrics.

Teodoro A. Manubay, M.D., 1301 First St., Kennett 63857, has become a member of Dunklin County Medical Society. Dr. Manubay is a native of the Philippines, received his preliminary education at Far Eastern University and his M.D. degree at Far Eastern University in 1970. He specializes in radiology.

Charles W. Miller, M.D., 10004 Kennerly Rd., St. Louis 63128, has become a member of St. Louis Medical Society. Dr. Miller is a native of California, received his preliminary education at Trinity College and his M.D. degree at Washington University in 1972. He specializes in dermatology.

Daniel J. Ostergaard, M.D., 12807 W. 109th, Overland Park, Kan., 66201, has become a member of Jackson County Medical Society. Dr. Ostergaard is a native of Fergus Falls, Minn., received his preliminary education at the University of North Dakota and his M.D. degree at the University of Texas in 1971. He is in family practice.

George S. Postma, M.D., 6915 W. 50th Terr., Shawnee Mission, Kan., 66202, has become a member of Jackson County Medical Society. Dr. Postma is a native of Denver, Colo., received his preliminary education at the University of Denver and his M.D. degree at the University of Arkansas in 1973. He specializes in internal medicine.

John J. Purcell, Jr., M.D., 6744 Clayton, St. Louis 63117, has become a member of St. Louis Medical Society. Dr. Purcell is a native of Missouri, received his preliminary education at St. Louis University and his M.D. degree at St. Louis University in 1969. He specializes in ophthalmology.

Michael A. Rasmussen, M.D., Westown III, Suite 100, Liberty 64068, has become a member of Clay County Medical Society. Dr. Rasmussen is a native of Dickinson, N.D., received his preliminary education at Iowa State University and his M.D. degree at the University of Missouri in 1973. He specializes in internal medicine.

J. Michael Ribaldo, M.D., 777 S. New Ballas Rd., St. Louis 63141, has become a member of St.

Louis Medical Society. Dr. Ribaldo is a native of Louisiana, received his preliminary education at Louisiana State University and his M.D. degree at the Louisiana State Medical Center in 1967. He specializes in plastic surgery.

James A. Shapero, M.D., Harry S Truman Veterans Hospital, Columbia 65201, has become a member of Boone County Medical Society. Dr. Shapero is a native of Cleveland, Ohio, received his preliminary education at Jefferson College and his M.D. degree at Ohio State University in 1969. He specializes in psychiatry.

William Sill, D.O., 235 Shelburne, St. Charles 63301, has become a member of St. Charles-Lincoln County Medical Society. Dr. Sill is a native of Grand Rapids, Mich., received his preliminary education at Millikin University and his D.O. degree at the Kirksville College of Osteopathic Medicine in 1970. He specializes in family practice.

Barry Steiman, M.D., 11636 Chieftain, Creve Coeur 63141, has become a member of St. Charles-Lincoln County Medical Society. Dr. Steiman is a native of Boston, Mass., received his preliminary education at Indiana University and his M.D. degree at Indiana University in 1970. He specializes in obstetrics and gynecology.

Hugh Stierholz, D.O., 6375 Hadden Bay Dr., Florissant 63033, has become a member of St. Charles-Lincoln County Medical Society. Dr. Stierholz is a native of Newark, N. J., received his preliminary education at Illinois College and his D.O. degree at the College of Osteopathic Medicine and Surgery in Des Moines, Ia. in 1965. He specializes in anesthesia.

Gary Wayne Taney, M.D., 2700 Hospital Drive, N. Kansas City 64116, has become a member of Clay County Medical Society. Dr. Taney is a native of Kansas City, Kans., received his preliminary education at William Jewell College and his M.D. degree at the University of Missouri in 1972. He specializes in obstetrics and gynecology.

James M. Toomey, M.D., 517 S. Euclid, St. Louis 63110, has become a member of St. Louis Medical Society. Dr. Toomey is a native of Massachusetts, received his preliminary education at Holy Cross College and his M.D. degree at Boston University School of Medicine. He specializes in otolaryngology.

Philip C. Trotta, M.D., 4511 Forest Park Blvd., St. Louis 63108, has become a member of St. Louis Medical Society. Dr. Trotta is a native of Ohio, received his preliminary education at Case Western Reserve University and his M.D. degree at St. Louis University in 1969. He specializes in radiology.

Tai-Po Tschang, M.D., 615 S. New Ballas Rd., St. Louis 63141, has become a member of St. Louis Medical Society. Dr. Tschang is a native of China, received his preliminary education at Southern Illinois University and his M.D. degree at Duke University in 1972. He specializes in pathology.

Richard J. Tully, M.D., 807 Stadium Rd., Columbia 65201, has become a member of Boone County Medical Society. Dr. Tully is a native of Los Angeles, Calif., received his preliminary education at the University of California and his M.D. degree at the University of Chicago in 1968. He specializes in radiology.

Timothy T. Turner, D.O., 862 Mariner's Point Dr., Creve Coeur 63141, has become a member of St. Charles-Lincoln County Medical Society. Dr. Turner is a native of Kansas City, received his preliminary education at the University of Kansas and his D.O. degree at the Kansas City College of Osteopathic Medicine in 1973. He specializes in family practice.

M. J. Versackas, M.D., 4901 Barnes Hospital, St. Louis 63110, has become a member of St. Louis Medical Society. Dr. Versackas is a native of Iowa, received his preliminary education at the University of Iowa and his M.D. degree at the University of Iowa in 1973. He specializes in ophthalmology.

Stephen Edward Vilmer, M.D., 2030 Swift, N. Kansas City 64116, has become a member of Clay County Medical Society. Dr. Vilmer is a native of Brownwood, Tex., received his preliminary education at the University of Kansas and his M.D. degree at the University of Kansas in 1969. He specializes in orthopedic surgery.

Martin J. Walsh, M.D., #8 Mill Race Ct., St. Peters 63376, has become a member of St. Charles-Lincoln County Medical Society. Dr. Walsh is a native of Van Nuys, Calif., received his preliminary education at the University of San Francisco and his M.D. degree at St. Louis University in 1971. He specializes in internal medicine.

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Actions. Antiminth (pyrantel pamoate) has demonstrated anthelmintic activity against *Enterobius vermicularis* (pinworm) and *Ascaris lumbricoides* (roundworm). The anthelmintic action is probably due to the neuromuscular blocking property of the drug.

Antiminth is partially absorbed after an oral dose. Plasma levels of unchanged drug are low. Peak levels (0.05-0.13 µg/ml) are reached in 1-3 hours. Quantities greater than 50% of administered drug are excreted in feces as the unchanged form, whereas only 7% or less of the dose is found in urine as the unchanged form of the drug and its metabolites.

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Precautions. Minor transient elevations of SGOT have occurred in a small percentage of patients. Therefore, this drug should be used with caution in patients with preexisting liver dysfunction.

Adverse Reactions. The most frequently encountered adverse reactions are related to the gastrointestinal system.

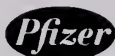
Gastrointestinal and hepatic reactions: anorexia, nausea, vomiting, gastralgia, abdominal cramps, diarrhea and tenesmus, transient elevation of SGOT.

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In Memoriam

Nathan Blackman, M.D., 300 Althus Pl., St. Louis 63122; a graduate of the University of Paris, 1936; member St. Louis County Medical Society; age, 69; died Aug. 29, 1976.

James A. Tesson, M.D., 9911 Lee Blvd., Shawnee Mission, Kan. 66206; a graduate of Washington University, 1918; member Jackson County Medical Society; age, 84; died Aug. 29, 1976.

Theodore H. Aschman, M.D., 8740 Brooklyn, Kansas City 64132; a graduate of Harvard University, 1917; member Jackson County Medical Society; age, 87; died Aug. 30, 1976.

Harold Freedman, M.D., 2 Ladue Manor, St. Louis 63124; a graduate of Washington University, 1938; member St. Louis Medical Society; age, 69; died Sept. 4, 1976.

Robert J. Lanning, M.D., 7 Cardiff La., Hannibal 63401; a graduate of St. Louis University, 1933;

member Marion-Ralls-Shelby County Medical Society; age, 67; died Sept. 9, 1976.

Russell J. Crider, M.D., 222 South 2nd St., St. Charles 63301; a graduate of Washington University, 1940; member St. Charles-Lincoln County Medical Society; age, 60; died Sept. 18, 1976.

John F. Sulzbach, M.D., 57 Frontenac Dr., St. Louis 63131; a graduate of Marquette University, 1941; member St. Louis Medical Society; age, 61; died Sept. 21, 1976.

John W. Williams, M.D., 600 S. Glenstone, Springfield 65802; a graduate of the University of Arkansas, 1933; member of Greene County Medical Society; age, 67; died Sept. 27, 1976.

Frazier D. Alexander, M.D., 4969 Enright Ave., St. Louis 63108; a graduate of Meharry Medical College, 1935; member St. Louis Medical Society; age, 67; died Oct. 6, 1976.

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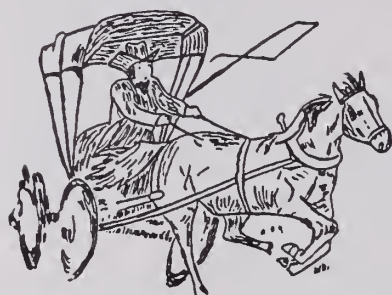
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Missouri Medicine in Review



FORTY YEARS AGO

The Jackson County Medical Society met for the first time in its new auditorium in the Receiving Building of the General Hospital in Kansas City on September 15. The Society had met in various places during its long existence, but this is the first time it has had a wholly adequate and satisfactory home. The meeting was for the dedication of the auditorium. Dr. Frank R. Teachenor of Kansas City, President of the Society, presided. Addresses were delivered by Dr. Edwin H. Schorer, Kansas City, Director of Health; Judge Henry F. McElroy, Kansas City, City Manager; and Dr. A. Graeme Mitchell, Cincinnati, B. K. Rachford Professor of Pediatrics, University of Cincinnati College of Medicine.

The Wayne County Medical Society was reorganized at a meeting in Piedmont on August 11. Dr. Thomas C. Piles, Piedmont, was elected President and Dr. John F. Wagner, Greenville, was elected Secretary-Treasurer. The Society is in the 24th District of which Dr. T. W. Cotton, Van Buren, is Councilor.

TWENTY-FIVE YEARS AGO

The American Medical Association exhibit on "Mechanical Quackery," which was shown at the Missouri State Fair last month, reached many people who normally would not be reached by other avenues of educational approach. The assistance of Mr. Oliver Field and Mr. George Larson from the AMA Headquarters was invaluable in explaining the exhibit to the visitors. Some of the fake gadgets making up the display received a great deal of attention in that they are purported to grow

hair on bald heads and restore hearing in painless fashion, to eliminate the need for eyeglasses and even, in a manner of speaking, make young men out of old men.

The attendance at the Missouri State Fair reached the 433,000 mark for the first time since the time that the two-week fair was discontinued some years ago. For the second consecutive year, the MSMA sponsored "A Hall of Health Exhibit" in cooperation with other voluntary health organizations—members of the Missouri Health Council. The entire exhibit was housed in the Educational Building.

Mount St. Rose Sanatorium in St. Louis will celebrate the 50th anniversary of its establishment with a two-day open house on October 6-7 and will feature exhibits tracing the history of tuberculosis and treatment during the last 50 years.

TEN YEARS AGO

The following is a part of an editorial written by Robert L. Miles, M.D. and published in the May, 1966 *Bulletin of the Santa Barbara (Calif.) County Medical Society*:

"This is a time that no physicians should sit back and keep his mouth shut. We are in a position now of having to put up with laws that we don't like because we kept our mouths shut too long because we were afraid of offending someone.

"Most farms had weather vanes on the barn, hen-house or house—all for a definite purpose. The purpose was to tell the farmer which way the wind was blowing. He really didn't care. He would still go about his chores as per schedule regardless of the way the wind was blowing. Sometimes, he would hesitate to fertilize a certain area because he didn't want the horse manure to blow back on him.

"We should not sit down and say nothing and just go merrily on the way. One look at the governmental weather vane and you can see where the fertilizer is blowing. We must say our piece.

"As George Bernard Shaw said, 'Take care to get what you like or you will end up liking what you get.'"

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Indications: Relief of anxiety and tension occurring alone or accompanying various disease states.

Contraindications: Patients with known hypersensitivity to the drug.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. As with all CNS-acting drugs, caution patients against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving). Though physical and psychological dependence have rarely been reported on recommended doses, use caution in administering to addiction-prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions), following discontinuation of the drug and similar to those seen with barbiturates, have been reported.

Usage in Pregnancy: Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.

Precautions: In the elderly and debilitated, and in children over six, limit to smallest effective dosage (initially 10 mg or less per day) to preclude ataxia or oversedation, increasing gradually as needed and tolerated. Not recommended in children under six. Though generally not recommended, if combination therapy with other psycho-

tropics seems indicated, carefully consider individual pharmacologic effects, particularly in use of potentiating drugs such as MAO inhibitors and phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions (e.g., excitement, stimulation and acute rage) have been reported in psychiatric patients and hyperactive aggressive children. Employ usual precautions in treatment of anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation have been reported very rarely in patients receiving the drug and oral anticoagulants; causal relation-

ship has not been established clinically.

Adverse Reactions: Drowsiness, ataxia and confusion may occur, especially in the elderly and debilitated. These are reversible in most instances by proper dosage adjustment, but are also occasionally observed at the lower dosage ranges. In a few instances syncope has been reported. Also encountered are isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent and generally controlled with dosage reduction; changes in EEG patterns (low-voltage fast activity) may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice and hepatic dysfunction have been reported occasionally, making periodic blood counts and liver function tests advisable during protracted therapy.

Usual Daily Dosage: Individualize for maximum beneficial effects. **Oral—Adults:** Mild and moderate anxiety and tension, 5 or 10 mg *t.i.d.* or *q.i.d.*; severe states, 20 or 25 mg *t.i.d.* or *q.i.d.* **Geriatric patients:** 5 mg *b.i.d.* to *q.i.d.* (See Precautions.)

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Please see preceding page for a summary of product information.

Missouri Medicine

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119th MSMA Annual Session
April 14-17, 1977 St. Louis

Both after



Predominant
psychoneurotic
anxiety

Associated
depressive
symptoms

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Tension and anxiety states; somatic complaints which are concomitants of emotional factors; psychoneurotic states manifested by tension, anxiety, apprehension, fatigue, depressive symptoms or agitation; symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in skeletal muscle spasm due to reflex spasm to local pathology, spasticity caused by upper motor

neuron disorders, athetosis, stiff-man syndrome, convulsive disorders (not for sole therapy).

Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma; may be used in patients with open angle glaucoma who are receiving appropriate therapy.

Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive dis-

orders, possibility of increase in frequency and/or severity of grand mal seizures. require increased dosage of standard convulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms (similar to those with barbiturates and alcohol) occurred following abrupt discontinuation (convulsions, tremor, abdominal and leg cramps, vomiting and sweating). addiction-prone individuals under ca

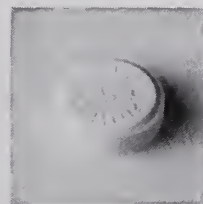
respond to one

According to her major symptoms, she is a psychoneurotic patient with severe anxiety. But according to the description she gives of her feelings, part of the problem may sound like depression. This is because her problem, although primarily one of excessive anxiety, is often accompanied by depressive symptomatology. Valium (diazepam) can provide relief for both—as excessive anxiety is relieved, the depressive symptoms associated with it are also relieved.

There are other advantages in using Valium for the management of psychoneurotic anxiety with secondary depressive symptoms: the psychotherapeutic effect of Valium is pronounced and rapid. This means that improvement is usually apparent

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in psychoneurotic
anxiety states
with associated
depressive symptoms

and surveillance because of their predisposition to habituation and dependence. In pregnancy, lactation or women of childbearing age, weigh potential benefit against possible hazard.

Precautions: If combined with other psychotropics or anticonvulsants, consider fully pharmacology of agents employed; drugs such as phenothiazines, sedatives, barbiturates, MAO inhibitors and other antidepressants may potentiate sedation. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies.

Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle

spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.



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Missouri Medicine

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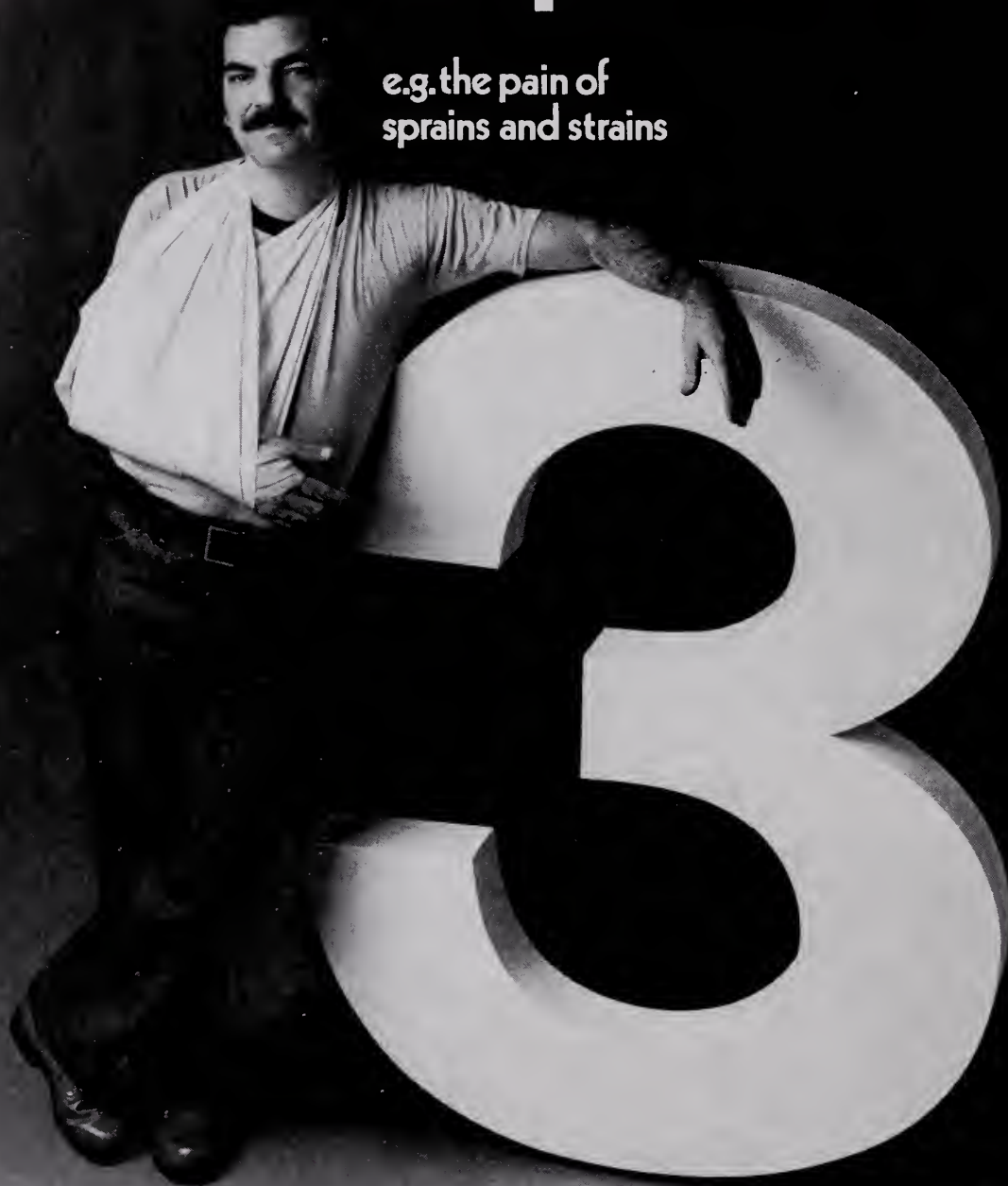
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NEWS

ROUND - UP

November, 1976

Countersuits, Medicaid resolutions passed

Strong stand on physician countersuits and increased reimbursement for physicians under Medicaid were taken by the MSMA House of Delegates at its first Interim Session, Nov. 3-4, at the Lake of the Ozarks.

With 121 Delegates participating, the House took action on 21 resolutions dealing with state and national legislative matters and established the Association's policies for the upcoming legislative year.

The countersuit resolution which was adopted states, "Any Missouri physician found not to be negligent in a malpractice suit shall have the assistance of MSMA in determining if there exists a reasonable basis for the physician to commence an action for malicious prosecution arising out of such case."

This action takes effect immediately and members who feel they qualify should contact MSMA Headquarters.

The Reference Committee Substitute resolution dealing with the Missouri Medicaid problem called for all-out efforts by physician, the public and the Legislature to provide adequate funding for the program before it collapses.

Delegates pointed out that the Medicaid program is continuing to lose participating physicians due to sub-standard payments, delays in payments and arbitrary disallowances of payments.

The resolution instructed the Association to conduct a campaign to inform the public and Legislators of the many physicians who have continued to provide service to Medicaid patients despite the fact that fees received from the State often amount to less than the physician's actual cost of administering the care.

A joint committee of the MSMA and Missouri Osteopathic Association is currently working with the State Division of Family Services to secure adequate financing of the Medicaid program. The resolution passed by the House reinforces this committee's hard stand and calls for expanded effort by the Association.

Testimony on the resolution brought out that the physicians of Missouri have been very unhappy with the Medicaid program but had not done anything about it. Now, Delegates were told, each physician must get in touch personally with his Legislators in order to obtain the goals set forth in the resolution. "It's in the hands of the physicians, now," said one Delegate. "If they want a better program, they will have to help us on this!"

Other resolutions adopted by the House would:

MALPRACTICE

- Board of Healing Arts — Resolve that the Missouri General Assembly should provide the Board of Healing Arts with a wide range of discipline powers including requiring errant doctors to seek counseling or additional education. Also support Board's other legislative aims.



Dr. Max S. Franklin, MSMA President, addresses the First Session of the House of Delegates.

- Structured Awards — Seek legislation that would permit payment in periodic installments to injured persons in judgements of over \$200,000.

- Expert Witnesses — Require expert witnesses in malpractice cases to be from Missouri or contiguous states and require an expert witness in a specific field to have spent at least 60% of his practice for the past five years in the specialty of testimony.

- Collateral Sources — Provide for reduction in amount of the judgement by the amount of payment already received by the injured person from sources other than personally paid insurance programs.

OTHER LEGISLATION

- Coroners/Medical Examiners — Urge enactment of legislation to authorize coroners and medical examiners performing autopsies to retain such human tissues as may be needed and are of value for the teaching of medical science, the conduct of medical research or the administration of medical therapy.

- Health Systems Agencies — Take steps to increase practicing physician representation on H.S.A. Boards.

- Physician Assistants — Withdraw MSMA support for legislation seeking licensure of physician assistants.

- Definition of Primary Care — Define primary care and primary physician in terms of function and responsibility, not specialty or subspecialty designation.

- Federal Health Professions Scholarships — Ask income tax exemption for funds paid to students by these scholarships for tuition, books and supplies.

- Confidentiality — Support the AMA model bill to

(Continued on Next Page)

STATEMENT OF ANNUAL DUES

ANDREW COUNTY MEDICAL SOCIETY
1234 S.D. ABE DRIVE
SPRINGFIELD MO 12345
ATTN MR. WILLIAM JONES

DUES YEAR 01/01/77 TO 12/31/77
MEMBERS DELINQUENT 12/05/76
ANDREW ACTIVE

PLEASE MAKE CHECK PAYABLE TO ANDREW MEDICAL SOCIETY

WARREN C BAKER
703 HI-000
SAVANNAH 64485

SEE OTHER SIDE FOR ADDRESS CHANGE AND SPECIAL INSTRUCTIONS.

STATE AND COMPONENT DUES ARE MANDATORY AND TAX-DEDUCTIBLE.
ALL OTHER DUES ARE VOLUNTARY.
MEMBERS NOT PAYING DUES BY 12/05/76 WILL BE DELINQUENT.

AMA DUES ARE VOLUNTARY AND TAX-DEDUCTIBLE AND YOU ARE URGED TO SUPPORT THIS NATIONAL VOICE OF MEDICINE.

MMPAC IS A VOLUNTARY POLITICAL CONTRIBUTION. IF YOU ARE A PROFESSIONAL CORPORATION, MMPAC DUES SHOULD BE PAID BY PERSONAL CHECK. \$50.00 FOR BOTH HUSBAND AND WIFE. \$25.00 FOR DOCTOR ONLY.

ANY QUESTIONS CONCERNING THE BILL CONTACT YOUR LOCAL SOCIETY BRANCH. RETURN COMPLETE LOWER PORTION OF THIS NOTICE WHEN MAKING PAYMENT.

DUES ARE AS FOLLOWS

M-COUNTY	100.00
M-STATE	10.00
V-AMA	10.00
V-MOD/ERP	50.00
V-BLOG FND	15.00
V-MEETINGS	25.00
V-MOD/ERP	50.00
TOTAL DUES AND CONTRIBUTIONS	640.00

DETACH AND RETURN WHEN MAKING PAYMENT

28-010 OFFICE USE ONLY AT 28-010 AT

7302401523058280T039000

C-100.00 -S-150.00 -A-250.00

-P-50.00 -B-75.00 -M-25.00

-F-50.00 -T-640.00 ERF SCH

WARREN C BAKER MD

ANDREW COUNTY MEDICAL SOCIETY
1234 S.D. ABE DRIVE
SPRINGFIELD MO 12345
ATTN MR. WILLIAM JONES

WARREN C BAKER MD
703 HI-000
SAVANNAH 64485

John Kuebler joins staff of MSMA



John W. Kuebler, of Jefferson City, has joined the staff of the Missouri State Medical Association as Director of Governmental Relations. John succeeds David Carr, who recently joined the Missouri Health Planning and Development Agency.

John, 25, is a 1976 graduate of the University of Georgia School of Law. He was admitted to Georgia Bar in June 1976, and admitted to the Missouri Bar in September, 1976.

John will deal primarily with the ever-growing number of government agencies which have direct and indirect affect on the practice of medicine. He will also work with the medical specialty groups in Missouri and is expected to assist in the areas of legislative and professional liability matters.

MSMA switching to new computer dues bill form

MSMA members will soon be receiving a new type of dues billing form. The Association is changing its record-keeping system from manual to computer and the new dues bill will reflect this change.

Each member will receive a dues bill similar to the sample "Statement of Annual Dues" pictured above. The bill is composed of three portions. The top portion contains the name of the member and amount of dues, the middle portion has an explanation of the dues and the bottom portion contains the return address of the appropriate county medical society.

Upon receiving the bill, each member should detach and retain the upper two portions for his records. The bottom portion MUST be returned along with the member's check to his county medical society. Each member should mark on the far right hand side of the bottom portion the dues he is paying (i.e. County, State, AMA, MMPAC). If the member is paying the entire amount billed, he may merely circle the bottom figure.

As in the past, each member should then forward his check and the bottom portion to his county medical society for recording. Each county medical society will then forward the bottom portions of all county members' dues bills to the MSMA. In turn, these dues bills will be sent to the AMA to be entered into the computer.

It is hoped the new computer setup will facilitate the handling of all record-keeping chores for the MSMA. In addition, the new system should result in faster and improved service for members.

Dr. Fraser is named

Dr. Daniel M. Fraser, of St. Louis, has been named to the 15-member AMA Ad Hoc Committee on Services to Young Physicians.

The committee will ascertain the needs of young, practicing physicians and make recommendations for modification of existing AMA activities and the creation of new services.

Dr. Stelmach is elected

Dr. W. Jack Stelmach, director of the Goppert Family Practice Center at Kansas City's Baptist Memorial Hospital, has been named chairman of the Board of Directors of the American Academy of Family Physicians, the national association of family doctors.

The Kansas Citian, a native of Kansas City, Kan., and graduate of the University of Kansas School of Medicine in 1953, has served the last two years as chairman of the Education Commission of the 37,000-member AAFP. He has been active in Academy affairs since the early 1960s and served as president of the Missouri chapter in 1973.

Countersuits (continued)

preserve and protect the confidentiality of the physician-patient relationship.

- Federal Licensure — Oppose any legislation proposing Federal licensure of health manpower.

- Definition of Death — Back a bill stating a person shall be considered dead if in the announced opinion of a physician, based on ordinary standards of medical practice, the person has experienced an irreversible cessation of spontaneous brain function.

- Certificate-of-Need — Support amendments to certificate-of-need legislation to exempt private physicians and their offices.

- Curtailling Expansion of Optometry — Direct the MSMA to vigorously undertake to defeat any legislative attempt to expand the activities of optometry beyond its present boundaries.

- "Good Samaritan" — Seek legislation to absolve trained medical personnel from liability for acts of ordinary negligence under appropriate emergency circumstances.

- National Health Insurance — Endorse the AMA's N.H.I. plan.

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elevated blood pressure
in diuretic-responsive
patients.

Lasix. For the
treatment of essential
benign hypertension.

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Lasix® Tablets (furosemide) 20 mg and 40 mg in hypertension.

A brief summary of the Prescribing Information for
Lasix® (furosemide) Tablets 20 mg and 40 mg

WARNING—Lasix (furosemide) is a potent diuretic which if given in excessive amounts can lead to a profound diuresis with water and electrolyte depletion. Therefore, careful medical supervision is required, and dose and dose schedule have to be adjusted to the individual patient's needs. (See under "Dosage and Administration.")

Indications—Lasix (furosemide) is indicated for the treatment of the edema associated with congestive heart failure, cirrhosis of the liver, and renal disease, including the nephrotic syndrome.

Hypertension—Lasix (furosemide) may be used for the treatment of hypertension alone or in combination with other antihypertensive drugs. Hypertensive patients who cannot be adequately controlled with thiazides will probably also not be adequately controllable with Lasix (furosemide) alone.

CONTRAINDICATIONS—Because animal reproductive studies have shown that Lasix (furosemide) may cause fetal abnormalities, the drug is contraindicated in women of childbearing potential. (See "Additional Information.")

Lasix (furosemide) is contraindicated in anuria. If increasing azotemia and oliguria occur during treatment of severe progressive renal disease, the drug should be discontinued. In hepatic coma and in states of electrolyte depletion, therapy should not be instituted until the basic condition is improved or corrected. Lasix (furosemide) is contraindicated in patients with a history of hypersensitivity to this compound.

Warnings—Excessive diuresis may result in dehydration and reduction in blood volume, with circulatory collapse and with the possibility of vascular thrombosis and embolism, particularly in elderly patients. Excessive loss of potassium in patients receiving digitalis glycosides may precipitate digitalis toxicity. Care should also be exercised in patients receiving potassium depleting steroids.

Frequent serum electrolyte, CO₂, and BUN determinations should be performed during the first few months of therapy and periodically thereafter, and abnormalities corrected or the drug temporarily withdrawn.

In patients with hepatic cirrhosis and ascites, initiation of therapy with Lasix (furosemide) is best carried out in the hospital. Sudden alterations of fluid and electrolyte balance in patients with cirrhosis may precipitate hepatic coma; therefore, strict observation is necessary during the period of diuresis. Supplemental potassium chloride and, if required, an aldosterone antagonist are helpful in preventing hypokalemia and metabolic alkalosis.

Patients should be observed regularly for the possible occurrence of blood dyscrasias, liver damage, or other idiosyncratic reactions.

In those instances where potassium supplementation is required, an oral liquid preparation should be used rather than enteric-coated potassium salts.

There have been several reports, published and unpublished, concerning nonspecific small-bowel lesions consisting of stenosis, with or without ulceration, associated with the administration of enteric-coated thiazides with potassium salts. These lesions may occur with enteric-coated potassium tablets alone or when they are used with nonenteric-coated thiazides, or certain other oral diuretics.

These small-bowel lesions have caused obstruction, hemorrhage, and perforation. Surgery was frequently required, and deaths have occurred.

Available information tends to implicate enteric-coated potassium salts, although lesions of this type also occur spontaneously. Therefore, coated potassium-containing formulations should be administered only when indicated and should be discontinued immediately if abdominal pain, distention, nausea, vomiting, or gastrointestinal bleeding occurs.

Patients with known sulfonamide sensitivity may show allergic reactions to Lasix (furosemide).

Precautions—As with any potent diuretic, electrolyte depletion may occur during therapy with Lasix (furosemide), especially in patients receiving higher doses and a restricted salt intake. Electrolyte depletion may manifest itself by weakness, dizziness, lethargy, leg cramps, anorexia, vomiting, and/or mental confusion.

Asymptomatic hyperuricemia can occur and gout may rarely be precipitated. Reversible elevations of BUN may be seen. These have been observed in association with dehydration, which should be avoided, particularly in patients with renal insufficiency.

When parenteral use of Lasix (furosemide) precedes its oral use, it should be kept in mind that cases of tinnitus and reversible hearing impairment have been reported. There have also been some reports of cases in which irreversible hearing impairment occurred. Usually, ototoxicity has been reported when Lasix (furosemide) was injected rapidly in patients with severe impairment of renal function at doses exceeding several times the usual recommended dose and in whom other drugs known to be ototoxic were often given. If the physician elects to use high dose parenteral therapy in patients with severely impaired renal function, controlled intravenous infusion is advisable (for adults, it has been reported that an infusion rate not exceeding 4 mg Lasix [furosemide] per minute has been used).

Increases in blood glucose, and alterations in glucose tolerance tests with abnormalities of the fasting and two-hour postprandial sugar have been observed, and rare cases of precipitation of diabetes mellitus have been reported.

Lasix (furosemide) may lower serum calcium levels, and rare cases of tetany have been reported.

Patients receiving high doses of salicylates, in conjunction with Lasix (furosemide) may experience salicylate toxicity at lower doses because of competitive renal excretory sites.

Diuretics such as furosemide may enhance the nephrotoxicity of cephaloridine. Therefore, Lasix (furosemide) and cephaloridine should not be administered simultaneously.

Sulfonamide diuretics have been reported to decrease arterial responsiveness to pressor amines and to enhance the effect of tubocurarine. Great caution should be exercised in administering curare or its deriva-

tives to patients undergoing therapy with Lasix (furosemide), and it is advisable to discontinue Lasix (furosemide) for one week prior to any elective surgery.

Adverse Reactions—Various forms of dermatitis, including urticaria and rare forms of exfoliative dermatitis, erythema multiforme, pruritus, paresthesia, blurring of vision, postural hypotension, nausea, vomiting, or diarrhea.

Anemia, leukopenia, aplastic anemia, and thrombocytopenia (with purpura). Rare cases of agranulocytosis which responded to treatment.

In addition, the following rare adverse reactions have been reported; however, relationship to the drug has not been established with certainty: sweet taste, oral and gastric burning, paradoxical swelling, headache, jaundice, thrombophlebitis and emboli and acute pancreatitis.

Lasix (furosemide)-induced diuresis may be accompanied by weakness, fatigue, lightheadedness or dizziness, muscle cramps, thirst, increased perspiration, urinary bladder spasm, and symptoms of urinary frequency.

Dosage and Administration

ADULTS

The usual adult dose of Lasix (furosemide) is 20 to 80 mg given as a single dose.

If the diuretic response with a single dose of 20 to 80 mg is not satisfactory, the following schedule should be used: Increase this dose by increments of 20 or 40 mg not sooner than 6 to 8 hours after the previous dose until the desired diuretic effect has been obtained. This individually determined single dose should then be given once or twice daily. The dose of Lasix (furosemide) may be carefully titrated up to 600 mg per day in those patients with severe clinical edematous states.

With doses exceeding 80 mg/day and given for prolonged periods, careful clinical and laboratory observations are particularly advisable.

Hypertension—The usual dose of Lasix (furosemide) is 40 mg twice daily both for initiation of therapy and for maintenance. Careful observations for changes in blood pressure must be made when this compound is used with other antihypertensive drugs, especially during initial therapy. The dosage of other agents must be reduced by at least 50 percent as soon as Lasix (furosemide) is added to the regimen to prevent excessive drop in blood pressure. As the blood pressure falls under the potentiating effect of Lasix (furosemide), a further reduction in dosage, or even discontinuation, of other antihypertensive drugs may be necessary. It is further recommended, if 40 mg twice daily does not lead to a clinically satisfactory response, to add other hypotensive agents, e.g., reserpine, rather than to increase the dose of Lasix (furosemide).

INFANTS AND CHILDREN

Pediatric Administration: The usual initial dose of oral Lasix in infants and children is 2 mg/kg body weight, given as a single dose. If the diuretic response is not satisfactory after the initial dose, dosage may be increased by 1 or 2 mg/kg not sooner than 6 to 8 hours after the previous dose. Doses greater than 6 mg/kg body weight are not recommended.

For maintenance therapy in infants and children, the dose should be adjusted to the minimum effective level.

How Supplied—Lasix Tablets 40 mg (furosemide) supplied as white, round, monogrammed, scored tablets.

Lasix Tablets 20 mg (furosemide) supplied as white, oval, monogrammed tablets.

Note: Dispense in dark containers. Exposure to light may cause slight discoloration which, however, does not alter potency.

Additional Information

Toxicology

The acute toxicity of Lasix (furosemide) has been determined in mice, rats, and dogs. In all three animal species, the oral LD₅₀ of Lasix (furosemide) exceeded 1000 mg/kg of body weight, while the intravenous LD₅₀ ranged from 300 to 680 mg/kg. Intragastric injection of the drug in newborn rats resulted in an LD₅₀ of 380 mg/kg.

The acute toxicity of high doses of Lasix (furosemide) was characterized by convulsions, paralysis, and collapse. Surviving animals often became dehydrated and depleted of electrolytes due to the diuresis induced by Lasix (furosemide). In the newborn rats, intragastric injection of the drug caused hyperactivity and anorexia.

Chronic toxicity studies with Lasix (furosemide) were done in rats and dogs. In a one-year study in rats, renal tubular degeneration occurred, with all doses higher than 50 mg/kg (4 times the maximal recommended human dose of 600 mg per day). A six-month study in dogs revealed calcification and scarring of the renal parenchyma at all doses above 10 mg/kg (83 percent of the maximal recommended human dose of 600 mg per day).

Reproductive Studies

The effects of Lasix (furosemide) on embryonic and fetal development and on pregnant dams were studied in mice, rats, and rabbits.

Lasix (furosemide) caused unexplained maternal deaths and abortions in the rabbit when 50 mg/kg (4 times the maximal recommended human dose of 600 mg per day) was administered between days 12 to 17 of gestation. In a previous study the lowest dose of only 25 mg/kg (2 times the maximal recommended human dose of 600 mg per day) caused maternal deaths and abortions. In a third study, none of the pregnant rabbits survived a dose of 100 mg/kg. Data from the above studies indicate fetal lethality which can precede maternal deaths.

The results of the mouse study and one of the three rabbit studies also showed an increased incidence of hydronephrosis (distention of the renal pelvis and, in some cases, of the ureters) in fetuses derived from treated dams as compared to the incidence in fetuses from the control group.



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The Council Reports

Meeting of Sept. 25, 1976

John N. Martin, M.D., St. Joseph, Chariman, called the meeting to order. Those present were Drs. Martin; Max S. Franklin, St. Louis; Howard J. McAlhany, Springfield; John I. Matthews, Jefferson City; Richard V. Bradley, St. Louis; R. Allen Chandler, Kansas City; J. Russell Comer, Hannibal; Donald R. Judd, St. Louis; Louis P. Hetlage, Troy; H. Peter Ekern, Mexico; R. John Torontow, Nevada; Andrew McCause, Kansas City; Walter German, Springfield; C. W. Cooper, Thayer; E. T. Hansbrough, Poplar Bluff; James T. Brown, Springfield; Stanley S. Peterson, Springfield; Rae W. Froelich, Lebanon; Hubert A. Ritter, St. Louis; Robert A. Slickman, Kansas City; William C. Allen, Columbia; R. K. Noback, Kansas City; George Thoma, St. Louis; Clement B. Grebel, St. Louis; Francis M. Maple, Springfield; Mrs. George Wilson, Columbia; Ms. Carla Neuschel, Chicago; Messrs. Mark Halvorson, Jefferson City; Allen D. Smith, Kansas City; Hollister S. Smith, St. Louis; James E. Thompson, Springfield; and Ray McIntyre, Royal O. Cooper, C. C. Swarens, Ron Ellison and Don Wilson, Staff.

APPROVAL OF MINUTES

Chairman Martin opened the meeting by asking for approval of the minutes of the previous Council Meeting held on May 22, 1976. On motion, duly seconded, the minutes were approved as distributed.

REPORT OF THE EXECUTIVE SECRETARY

Mr. McIntyre said that he, along with officers of the Association and many friends of Dr. Franklin, attended a testimonial dinner for Dr. Franklin in St. Louis sponsored primarily by Faith Hospital on September 11, and that it was a very festive occasion.

Dave Carr recently resigned as Governmental Relations Director with MSMA to take a position with the State Health Planning Agency.

Dr. Allen Klippel recently resigned from his position on the Governor's Task Force on Emergency Medical Services and has been replaced by Samuel Bonney, Director of Emergency Services at St. Louis University Hospital.

Mr. Cooper reported that Eggert-Carroll-Schroeder Agency of St. Louis and Altman-Singleton & Co. of Kansas City have merged into the Fred S. James & Co. of Missouri, Inc. This firm administers the MSMA Disability Income, Nurse-Hospital Expense and Office Overhead Insurance plans and has asked Council approval to increase the nurse-hospital expense room and board allowances from \$50 to \$85 per day and to increase the maximum benefit per cause from \$20,000 to \$25,000 with some increase in premiums.

On motion, duly seconded, the Council approved of the above changes.

Mr. McIntyre indicated that at the request from the Governor for a recommendation of a physician to serve on the Statewide Health Coordinating Council for HSAs, Dr. Robert E. Bregant, Jefferson City, has been recommended. We also received a request from HEW to appoint a physician from our Association to become a member of the first Statewide Professional Standards Review Council. Dr. Richard Bradley has been recommended by MSMA to serve on this Council.

We have been informed that two Missouri delegates to

the AMA have been appointed to Reference Committees—Dr. Rae Froelich to the Reference Committee C on Medical Education and Dr. Slickman has been appointed to Reference Committee on Scientific and Public Health.

The Chairman congratulated Dr. Hubert Ritter on his election to the AMA Board of Trustees and introduced Ms. Carla Neuschel of the Department of Federation Communications of the AMA.

REPORT OF THE TREASURER

Dr. Richard Bradley gave a brief rundown on the financial condition of the Association to date and indicated that he felt the MSMA is in good shape accordingly. On motion, duly seconded, the report of the Treasurer was accepted.

REPORT OF THE PRESIDENT

Dr. Franklin reported that he had written a letter to Dr. Ted Cooper, Assistant Secretary of Health at HEW, voicing opposition to proposed federal licensure and relicensure.

Dr. Franklin complimented the AMA for a recently adopted resolution urging that private practitioners on staffs of teaching hospitals be permitted to personally take care of their patients.

Dr. Franklin indicated that he will soon be attending a meeting of the Executive Committee of St. Louis Blue Shield to discuss the resolution regarding Blue Cross which was adopted at the May MSMA Council Meeting.

Dr. Franklin said that he felt we are very lucky to have one of our own Association members as Assistant Secretary of Health in the U. S. Department of HEW.

Dr. Martin reported that Governor Bond introduced a resolution at the Southern Governor's Conference in opposition to federal licensure. Dr. Martin suggested to the Council that they might wish to write their congressmen indicating similar opposition.

WOMAN'S AUXILIARY

Mrs. Wilson gave a brief report on the various meetings attended by representatives of the Woman's Auxiliary during the past few months.

She reported on the progress of the educational Cancer Program that the Auxiliary has developed with the American Cancer Society which is aimed at providing information on breast and uterine cancer to young adult females and their mothers.

Mrs. Wilson indicated that the Auxiliary is working in every community to help implement the Swine Flu Program.

Various Auxiliary members are attending meetings in the five HSA areas and are willing to share any information gathered at these meetings with the MSMA.

Mrs. Wilson reported on the events that will take place at the Fall Conference of the Woman's Auxiliary to be held on October 20-21 at the Ramada Inn in Jefferson City. She asked the Council members to please encourage their wives to attend the Fall Conference and to encourage all physicians' wives to attend.

Mrs. Wilson extended her thanks to Mr. McIntyre and the staff for the assistance and cooperation shown during her first six months as President of the Woman's Auxiliary.

MSMI

Mr. Cooper reported on the Missouri State Medical Insurance, Inc. and provided the following information: MSMI has been in operation for one and a half years with 755 members in the program as of the end of August. The division of classes is as follows: Class I—400; Class II—49; Class III—190; Class IV—38; Class V—21; Class VI—57. He indicated that a few more carriers in Missouri are now writing professional liability insurance and no complaints have been received recently regarding nonavailability.

CONTINUING MEDICAL EDUCATION

Mr. Ellison extended Dr. Ladyman's apologies for not being able to attend the Council Meeting and gave the following report. Eight on-site surveys have been completed on CME and the following have been granted CME accreditation: Doctor's Hospital, Poplar Bluff; SEMO Foundation for Medical Care; Missouri State Allergy Association; Academy of Health Professions; Ellis Fischel State Cancer Hospital, Columbia; St. Louis Mercy Medical Center, St. Louis; Trinity Lutheran Hospital, Kansas City; and Freeman Hospital, Joplin. Three additional institutions are now awaiting on-site visits. Mr. Ellison then informed the Council of the ten CME Councilor District Directors. They are as follows: District #1—John R. Dixon, M.D.; District #2—P. C. Avila, M.D.; District #3—Kenneth Bruns, M.D.; District #4—John C. Soucy, M.D.; District #5—William D. Bradshaw, M.D.; District #6—W. Wayne Boydston, M.D.; District #7—Martin L. Crow, M.D.; District #8—Marvin A. Singleton, M.D.; District #9—Bernard Draper, M.D.; and District #10—George H. Ladyman, M.D. Dr. McCause is Councilor Advisor. The fee for a hospital site team survey is \$250. There is no charge to medical societies and specialty organizations.

IMPLEMENTATION OF RESOLUTION #9

Chairman Martin indicated that a resolution concerning a possible increase in revenue for the Association was discussed during the Executive Session on Friday evening. Dr. Matthews presented the following resolution which implements Resolution #9 passed by the 1976 MSMA House of Delegates:

WHEREAS, Resolution #9 which was passed by the House of Delegates at the April, 1976 meeting states, "Resolved, that any Missouri physician found not to be negligent in a medical malpractice case shall have the assistance of the Missouri State Medical Association in determining if there exists a reasonable basis to commence an action for malicious prosecution arising out of such case."

WHEREAS, The Council wishes to implement this resolution promptly, therefore be it,

Resolved, That the following guidelines be adopted:

1. Any member of MSMA considering countersuit may request of MSMA a legal opinion as to the merit of his suit. This opinion will be rendered by attorneys hired by MSMA.
2. Any member of MSMA considering countersuit may request of MSMA a medical review of his records for a medical opinion as to the merit of his suit. This review will be conducted by a special panel of physicians appointed by the Council. Attached are details of procedures to be followed.

Three to five man special committee should be appointed.

- I. MSMA cannot bring a countersuit; it has no standing in a particular case. However, review and research is accomplished to support or encourage particular aggrieved defendant physicians in bringing a counter action.

- II. Case should be reviewed with a view to recommending a countersuit, or also providing expert defense witnesses.
 - III. Notice to the membership routinely, to alert them to this ongoing activity.
 - IV. Four conditions must be met, basically, before it can be recommended that a countersuit be entered:
 - A. Suit settled with no award
 - B. There be malice on the part of the plaintiff
 - C. There be lack of probable cause
 - D. There be injury to the defendant
 - V. Documents and information which must be received by MSMA for review and recommendation:
 - A. Copy of complaint
 - B. Medical documentation, progress notes, etc., case history
 - C. Interrogatories or depositions
 - D. Court orders
 - E. Names of all attorneys involved
 - F. Insurance carriers involved
 - G. Information on all parties
 - VI. Items received by MSMA staff, sorted, filed, and coordinated.
 - A. Submit to legal counsel for initial review.
 1. Legal counsel contacts physician and counsel as necessary and appropriate.
 2. Legal research conducted into various principles and doctrines.
 - B. If deemed necessary, medical review of medical procedures accomplished to help judge merits of case.
 - C. Accomplish liaison correspondence to have all elements present.
 - VII. Report to Committee with recommendation if suit should be recommended or if assistance be given.
 - VIII. As authorized, assist physician and counsel with legal research, opinions, etc. Develop expert defense witness source if practical and part of the assistance.
 - IX. If case goes on appeal, consider *amicus curiae* at that level.
- A motion was made, duly seconded and passed to approve the preceding resolution.

REPORT OF COMMISSION ON MEDICAL ECONOMICS

Dr. Peterson reported that the Commission on Medical Economics held a meeting on August 18 and several items were discussed. These are as follows:

1. The Commission discussed Resolution #3 adopted by the 1976 House of Delegates regarding the confidentiality of medical records. The AMA model bill on confidentiality of medical records was studied and the Commission recommends that the AMA model bill be given to the Committee on Legislative Affairs to be studied and modified, if necessary, for possible introduction into the next session of the Missouri General Assembly.
2. The Commission discussed Resolution #26, "Medicare Reimbursement," adopted by the House of Delegates during the 1976 Annual Session:

Resolved, That the Missouri State Medical Association take all appropriate action to seek a return of Medicare reimbursement to physician's usual, customary or reasonable charges in line with the program's original legislative contract to its beneficiaries, and be it further

Resolved, That the AMA be urged to continue to expend its efforts in this direction."

The Commission also discussed the Medicare-Medicaid Reimbursement Reform Act (S. 3205). The Commission supports the AMA in its summary statements concerning this bill. This legislation provides for extensive changes in the Medicare and Medicaid programs.

3. The Commission discussed Resolution #18 "Negotiation of Third Parties" adopted by the 1976 House of Delegates. The RESOLVED reads as follows:

Resolved, that the Council of the Missouri State Medical Association shall increase its effort to explore the possibility of developing such negotiating capacity either within the state organization or through an affiliated organization."

The sponsor of this resolution has been contacted, and it was his feeling that this negotiating capacity should be developed within the state organization.

The Commission recommends that the MSMA Council pursue the intent of this resolution and investigate the possibility of developing and implementing the negotiating capacity within the State Medical Association. The Commission also suggests that quite possibly Dr. Peterson and his organization should be consulted because of their expertise in this area.

4. Resolution #28 "Welfare Marketing of Medicine" was discussed. This resolution has been included in the MSMA Policy Manual and has been referred to the Committee on Legislative Affairs.
5. The Commission studied Resolution #36 dealing with advertising by physicians. The Commission reviewed the AMA Judicial Council policy statement on advertising and solicitation by physicians. The Commission accepted this position and noted that the Missouri Medical Practice Act prohibits solicitation of patients by physicians.
6. The Commission discussed a news article which indicated that the Ohio Blue Shield plan would legally support patients when they refused to pay the difference between the Blue Shield allowance and the physician's charges. The two Missouri plans were to be contacted to clarify their position on this issue.

Payment of nurse-anesthetists under Blue Shield plans was discussed. The plans are to be contacted on how they presently reimburse nurse-anesthetists and if CRNAs can accept assignments for their services. Coordination of benefits also was discussed and the two plans will be contacted concerning application of coordination of benefits.

7. A report was given on a meeting held regarding hospital Blue Cross contracts. The hospital contract problem has not as yet been satisfactorily resolved.
8. The State of Missouri Medicaid Program was discussed at length by the Commission. The Commission made the following recommendations to the Council:
 1. That the rate of reimbursement for services to be determined by a published fee schedule based upon an acceptable, reasonable, uniform, statewide fee-for-service determined by negotiation between the medical and osteopathic professions and the state of Missouri.
 2. Proposed fee schedules published in draft of manual. The fees proposed are totally unacceptable—
 - (1) The fees are too low.
 - (2) The fees are divisive because of the dual fee schedule.

The Commission strongly objected to the two clauses in the proposed new participation agreement. These objections were presented to members of the Physicians Advisory Committee that met with Mr. Gourley on Thursday, August 19.

A motion was made, seconded and passed to approve of the report.

On Aug. 19, 1976, the Physicians Advisory Committee to the Division of Family Services met with Mr. Ewing Gourley, Director of the Missouri Division of Family Services, to discuss fees being paid to physicians. After discussion, it was agreed by all those present to accept the recommendation of the Commission on Medical Economics that the rate of reimbursement for services be determined by a published

fee schedule based upon an acceptable reasonable, uniform, statewide fee-for-service determined by negotiation between the medical and osteopathic professions and the state of Missouri. It was agreed that a conjoint committee of representatives from the MSMA and MAOPS be set up to study the establishment of a single fee schedule.

A conference call was held by the MSMA Officers and Councilors on August 31 to discuss the Medicaid program and to appoint members to represent MSMA on the proposed Medicaid Fee Committee. The following physicians were appointed to this Committee: Leslie F. Bond, M.D., St. Louis; Rae W. Froelich, M.D., Lebanon; Max A. Heeb, M.D., Sikeston; Stanley S. Peterson, M.D., Springfield; and John H. Wells, M.D., Kansas City.

The Conjoint Medicaid Fee Committee met on September 8 and made the following recommendation:

"The Conjoint Committee recommends to the Missouri Division of Family Services that the latest Area I 75th percentile fees as determined by General American for payment of physicians' services under Medicare be presented to the Division of Family Services as the acceptable, reasonable, uniform statewide fee payable for physicians' services provided under the State of Missouri Medicaid program. These proposed fees are for fiscal period July 1, 1977 to June 30, 1978."

The Committee also stressed that this formula is to be used for the above fiscal period and under no circumstances should the Medicaid fees be tied permanently to the fees determined under Medicare.

The above decision was transmitted to the Director of the Division of Family Services by correspondence jointly signed by the Chairmen of the two Associations' Committees.

MISSOURI PSRO SUPPORT CENTER

Dr. Clement Grebel, MSMA's representative to the Support Center, reported that as of September 30, the Support Center would no longer be funded. Dr. Grebel stated that during the two years the Support Center was in operation, it had become a good central source of information and carried on liaison with various state agencies. The five PSROs in Missouri have now been conditionally funded and should be fully operational within a year. PSROs are setting up to do review of actual general medical and surgical care.

Dr. Grebel stated that he was very pleased with the work the MSMA is doing in areas such as governmental relations, the new thrust of the Interspecialty Commission and the scientific program development.

He also stated that he was pleased with the yellow page in the Journal and various articles and editorials that had appeared in the Journal on various governmental programs.

Dr. Grebel stated that the MSMA is now acting rather than waiting until something is fact and then reacting, and he indicated that he felt that the MSMA is on the right track.

A motion was made, seconded and passed to accept this report with commendation.

COUNCILOR DISTRICT REPORTS

District #2—Dr. Comer indicated that he did not have a report at this time.

District #4—Dr. Hetlage expressed concern about the state of confusion surrounding the swine flu vaccination program at the present. He said that his District is organized to carry out the vaccination program.

Dr. Hetlage stated that support for the countersuit proposal that was passed by the 1976 House of Delegates has arisen during the summer. He indicated that he felt that the MSMA should provide all legal help that it can to those who wish to file countersuits.

Dr. Hetlage stated that he had been in contact with the

University of Missouri School of Medicine in regard to some restrictions that the University may have in regard to post-graduate training programs.

District #5—Dr. Ekern stated that he had attended a meeting of the State Board of Registration for the Healing Arts where the subject of physician incompetency was discussed. At this meeting, it was pointed out that each case should be considered on its own merits and that cases should be referred to the local county medical society first rather than being referred to the State Board.

Dr. Ekern reported that the Mid-Missouri PSRO is active and doing reviews in five hospitals. Dr. Robert Bregant, a member of the Mid-Missouri PSRO, had been suggested as a member for the Statewide Professional Standards Review Council. The national meeting of PSRO will be held at Tan-Tar-A in 1977. Dr. Ekern stated that the HSA in Area II is not very active.

District #8—Dr. German stated that the Greene County Medical Society is the first medical society in the State to promote a CME program.

Dr. German reported that 20 students and several faculty members from the University of Missouri-Kansas City School of Medicine would spend most of the month of October in the Southwest Missouri area visiting doctors' offices, hospitals and health agencies.

Dr. German voiced his concern about the lack of information on the swine flu program. Dr. German stated that he appreciated Mr. Wilson's visits in his area. He indicated that he had received many good comments from doctors in outlying areas about these visits.

District #9—Dr. Cooper reported that a new pediatric wing of the hospital in West Plains is to be named after a physician in his District—Dr. Rollin H. Smith of West Plains.

Dr. Cooper reported that the D.O.s in his area had a meeting to discuss the malpractice situation and had invited the M.D.s and lawyers to attend.

District #10—Dr. Hansbrough reported that the Southeast Missouri Foundation for Medical Care had received CME accreditation and that hospitals in his area were now sponsoring CME programs.

Dr. Hansbrough also voiced his concern about the swine flu program and expressed appreciation to Mr. Wilson for visiting doctors in his District.

District #7—Dr. McCanse stated that the Jackson County Medical Society had issued policy statements on three areas of local concern—(1) Multiphasic health testing, (2) Diagnostic hospital admissions and (3) Guidelines on physicians relationships with laboratories.

Dr. McCanse reported that the medical-legal review committee had completed five reviews. Dr. McCanse invited all those present to attend a joint meeting of the Jackson and Clay County medical societies on professional liability on September 29.

Dr. McCanse reported that the HSA Board in his area had five physician members. Jackson County's TEL-MED program is running extremely well. It is receiving approximately 5,000-6,000 calls per month. Jackson County is now participating in the PRN program, which is a physician radio network sponsored by pharmaceutical houses that presents tapes on various issues.

Two task forces have been set up by the Mayor of Kansas City to study the teenage pregnancy problem in Kansas City and the regionalization of high risk obstetrical services, and the Jackson County Medical Society will participate in these. The Jackson County Medical Society also provided physicians for the Republican National Convention that was held in Kansas City.

Dr. Don Blim, President of the Jackson County Medical Society, wrote a letter to Dr. Franklin protesting the Council's decision to limit the upcoming Interim Session to legis-

lative matters only, and Dr. Franklin informed Dr. Blim that the Council felt that it did have the right to limit the business of the Interim Session to legislative matters.

District #6—Dr. Torontow stated that if possible he would like to see the MSMA develop a definitive policy on nurse practitioners.

District #3—Dr. Judd reported that all is functioning well. He stated that the St. Louis Medical Society was seeking a meeting with Blue Cross in regard to the MSMA Council resolution on Blue Cross.

District #1—Dr. Martin reported that he had no report at this time.

MISSOURI HEALTH DATA CORPORATION

Dr. Francis Maple, President of the Missouri Health Data Corporation, brought the Council up-to-date on the activities of the Corporation. The Corporation was chartered in October, 1975 with five M.D.s and D.O.s on the Board of Directors. The primary intent of the corporation is to control the data emanating from the hospitals and other health institutions in the state. The Missouri Division of Health and the National Center for Health Statistics have agreed the corporation will contract with them so that confidentiality and other factors will be completely controlled. Dr. Maple indicated that the Corporation will have to raise approximately \$100,000 to become operational. Then, it will be funded largely by the users. Dr. Maple stated that he hoped the MSMA would be willing to give a grant, give the corporation a loan or underwrite a loan to the corporation. Dr. Maple said that they hoped their funding could come from MSMA, MAOPS, hospitals, possibly the Blue Plans and private health insurance companies.

Dr. Maple stated that Dr. Domke, Director of the Missouri Division of Health, indicated that he would be willing to have this Corporation become the data collector.

Considerable discussion followed Dr. Maple's presentation regarding the Missouri Health Data Corporation. On motion, duly seconded, the Council accepted Dr. Maple's report for information.

On a motion, duly seconded, it was moved that the Missouri State Medical Association underwrite its share of the total commitment to a signature loan for the Missouri Health Data Corporation up to a maximum of \$10,000. The motion was carried.

INTERSPECIALTY MEDICINE

In the absence of Dr. Costello, Chairman of the Commission on Interspecialty Medicine, Mr. Ellison reported on the two meetings recently held by the Commission.

During the Commission Meeting on June 5, the following topics were discussed along with several resolutions:

Background information was given regarding the purpose of the meeting; The responsibility of the Annual MSMA Scientific Program; Professional liability and various programs now available in Missouri; Definition of "Primary Care." It was concluded unanimously and a resolution was passed that "primary care is not a discipline of medicine, but a style of practice that can be diverse in specialization." This resolution was forwarded to the MSMA Council for further action. The Commission heard about some of the current problems that face Missouri ophthalmologists. Legislative activities were discussed and it was resolved that Royal O. Cooper of the MSMA staff be invited to attend the next meeting and report on current activities in the Legislature.

The Chairman asked that the staff provide to the representative, alternate, secretary and president of each specialty copies of all minutes and reports and a list of phone numbers of the Commissioners.

(Continued on page 632)

Continuing Education Coming Events

The continuing medical education accreditation program of the MSMA has full approval by AMA's Council on Medical Education. The institutions and functions listed here qualify for Category I credit for the AMA Physician's Recognition Award. All accredited institutions in Missouri are invited to send this information for listing in MISSOURI MEDICINE. Please remember to include name of individual who can be contacted at your institution for additional information about your CME events.

Ed Bixby Institute for Postgraduate Education

Research Medical Center
2316 E. Meyer Blvd.
Kansas City 64132

(1977)

- Feb. 2 Cancer: Hodgkin's Disease and Other Lymphomas (Fourth Annual Seminar)
Apr. 6 Thyroid Disease: Update 1977
June 1 Pulmonary Disease (Third Annual Seminar)
Aug. 3 Critical Care

Ellis Fischel State Cancer Hospital & Cancer Research Center

115 Business Loop 70 West
Columbia 65201

Contact: C. E. Gene Ridenhour, M.D.

- Dec. 4 Stomas: Indications, Construction and Care

University of Missouri-Kansas City School of Medicine— Kansas City Southwest Clinical Society

Continuing Medical Education
2220 Holmes St., Kansas City 64108
(816) 471-3876

Contact: Alta Bingham

- Nov. 19-20 Long Weekend—Neurology/Pharmacology
Dec. 9-11 The Heart-1976—Current Topics in Cardiology

(1977)

- Jan. 23-28 Mid-Winter Traveling Medical Education Course (Steamboat Springs, Colo.)
Feb. 18-19 The Long Weekend—Fluid and Electrolyte Disorders I & II
Mar. 31-Apr. 1 Update in Gynecology
Apr. 15-16 The Long Weekend—Diabetes Mellitus/Endocrinology
May 12-13 Management of Problems in Gastrointestinal Surgery
June 2-3 Symposium on Physical Fitness

Missouri Chapter—American College of Physicians

Contact: Thomas W. Burns, M.D., F.A.C.P., University of Missouri School of Medicine, Columbia 65201

- Feb. 25-26 Missouri Regional Meeting

Kansas City Society of Ophthalmology and Otolaryngology

3036 Gillham Rd.
Kansas City 64108
(816) 531-8432

Contact: Roger Weis, Executive Director

- Dec. 9-10 Annual Clinical Meeting

University of Kansas Medical Center

Div. of Continuing Education
College of Health Sciences
Kansas City, Kan. 66103
(913) 831-7130

(1977)

- Feb. 14-15 Neurological Diseases
Mar. 7-9 Pediatrics
Mar. 17-18 Emergency Medicine: The First 90 Minutes
Mar. 28-30 Ophthalmology
Mar. 31-Apr. 1 Rehabilitation Medicine
Apr. 20-21 Family Practice
Apr. 22 Infectious Diseases

Washington University School of Medicine

660 S. Euclid Ave., St. Louis 63110
(314) 454-2515
Contact: Loretta Giacometto

- Dec. 5 Current Topics in Diabetes
(1977)
Mar. 4-5 Clinical Endocrinology
Mar. 11-12 A Postgraduate Course in Otolaryngology
(Continued on next page)

The Edward Mallinckrodt Institute of Radiology

510 S. Kingshighway, St. Louis 63110
(314) 454-2291

Contact: Ronald G. Evens, M.D.

Dec. 13 Clinical Utility of Ultrasound

(1977)

Jan. 10 Oral Cholecystography

Feb. 14 Esophageal Ulcer Disease

Apr. 11 Osteophytes, Syndesmophytes and other "Sygthes"

May 9 Newer Trends in Mammography—Medical and Physical

Greene County Medical Society

Professional Bldg., Springfield 65806
(417) 869-2531

Contact: James E. Thompson, Jr., Exec. Director

Nov. 19 Medical and Surgical Treatment of Arthritis

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Before prescribing, please consult complete product information, a summary of which follows:

Indications: Relief of anxiety and tension occurring alone or accompanying various disease states.

Contraindications: Patients with known hypersensitivity to the drug.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. As with all CNS-acting drugs, caution patients against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving). Though physical and psychological dependence have rarely been reported on recommended doses, use caution in administering to addiction-prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions), following discontinuation of the drug and similar to those seen with barbiturates, have been reported.

Usage in Pregnancy: Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.

Precautions: In the elderly and debilitated, and in children over six, limit to smallest effective dosage (initially 10 mg or less per day) to preclude ataxia or oversedation, increasing gradually as needed and tolerated. Not recommended in children under six. Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider individual pharmacologic effects, particularly in use of potentiating drugs such as MAO inhibitors and phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions (e.g., excitement, stimulation and acute rage) have been reported in psychiatric patients and hyperactive aggressive children. Employ usual precautions in treatment of anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation have been reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship has not been established clinically.

Adverse Reactions: Drowsiness, ataxia and confusion may occur, especially in the elderly and debilitated. These are reversible in most instances by proper dosage adjustment, but are also occasionally observed at the lower dosage ranges. In a few instances syncope has been reported. Also encountered are isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent and generally controlled with dosage reduction; changes in EEG patterns (low-voltage fast activity) may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice and hepatic dysfunction have been reported occasionally, making periodic blood counts and liver function tests advisable during protracted therapy.

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Division of Hoffmann-La Roche Inc.
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Please see summary of product information on opposite page.



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Big Balanced Rock, Chiricahua Mountains, Arizona (approx. 1,000 tons)

- **Most Widely Prescribed**—Antivert is the most widely prescribed agent for the management of vertigo* associated with diseases affecting the vestibular system such as Menière's disease, labyrinthitis, and vestibular neuronitis.
- **Relief of Nausea and Vomiting**—Antivert/25 can relieve the nausea and vomiting often associated with vertigo*.
- **Dosage for Vertigo***—The usual adult dosage for Antivert/25 is one tablet t.i.d.

BRIEF SUMMARY OF PRESCRIBING INFORMATION

*INDICATIONS. Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows:

Effective: Management of nausea and vomiting and dizziness associated with motion sickness.

Possibly Effective: Management of vertigo associated with diseases affecting the vestibular system.

Final classification of the less than effective indications requires further investigation.

CONTRAINDICATIONS. Administration of Antivert (meclizine HCl) during pregnancy or to women who may become pregnant is contraindicated in view of the teratogenic effect of the drug in rats.

The administration of medicine to pregnant rats during the 12-15 day of gestation has produced cleft palate in the offspring. Limited studies using doses of over 100 mg./kg./day in rabbits and 10 mg./kg./day in pigs and monkeys did not show cleft palate. Congeners of medicine have caused cleft palate in species other than the rat.

Meclizine HCl is contraindicated in individuals who have shown a previous hypersensitivity to it.

WARNINGS. Since drowsiness may, on occasion, occur with use of this drug, patients should be warned of this possibility and cautioned against driving a car or operating dangerous machinery.

Usage in Children: Clinical studies establishing safety and effectiveness in children have not been done; therefore, usage is not recommended in the pediatric age group.

Usage in Pregnancy: See "Contraindications."

ADVERSE REACTIONS. Drowsiness, dry mouth and, on rare occasions, blurred vision have been reported.

More detailed professional information available on request.

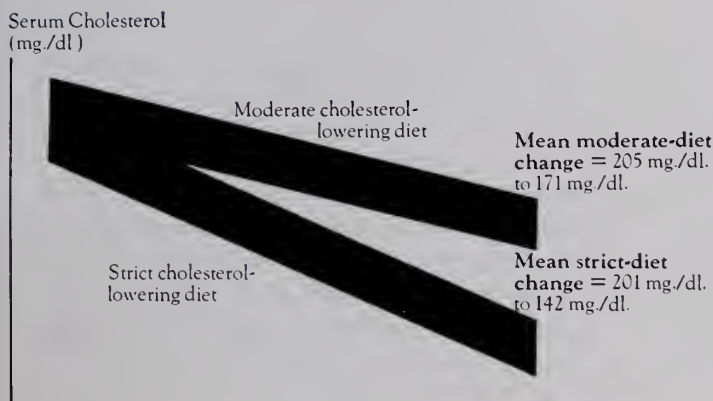
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Antivert[®]/25 
(meclizine HCl) 25 mg. Tablets
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Mazola helps.

Helps lower serum cholesterol



Adapted from Anderson, J. T., Grande, F., and Keys, A.: Cholesterol-lowering diets, J. Am. Diet. Assoc., 62:133, 1973.

In this study, a standard diet was modified to produce a moderate cholesterol-lowering diet, using skim milk, lean meats, fish, two eggs per week, poultry, and Mazola[®] corn oil and corn oil margarine. The average decrease in serum cholesterol for the 12 subjects was 17%. Serum cholesterol was reduced even more (average of 29% for 36 subjects) when a strict diet was used, which excluded butterfat and margarine, further reduced meat and eggs, and allowed Mazola corn oil as the only visible fat. All changes were considered highly significant.

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Patient Aids...Mazola helps your patients live with a cholesterol-control diet with (1) "A Diet for Today"—practical menus and recipes for cholesterol control. (2) "Beyond Diet...Exercise Your Way to Fitness and Heart Health." (3) "Q & A, Fats and Oils."



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Dr.
Name

Street Address

City

MM-1

State

Zip Code

in Brief

A summary of AMA, medical & health news

American Medical Association / 535 North Dearborn Street / Chicago, Illinois 60610 / Phone (312) 527-1500 / TWX 910-221-0300

AN AMA BUDGET for fiscal year 1977 based on expected revenue of \$57,770,000 and expected expenditures of \$46,205,000 was approved by the Board of Trustees. The anticipated favorable balance will enable the AMA to place \$11,565,000 in reserve, a policy reaffirmed by the House of Delegates at the 1975 Annual Convention. Spending will be spread among the six missions of the AMA Plan as follows: Scientific Policy and Information, \$15,547,000; Promote the Effective Delivery of Care, \$3,360,000; Assure and Continue to Improve the Quality of Medical Care, \$8,146,000; Represent the Medical Profession, \$6,265,000; Strengthen Organized Medicine, \$5,524,000; and Internal Support Service, \$5,863,000. Scheduled for the contingency fund is \$1,500,000.

THE THEME for the 5th annual AMA National Leadership Conference, on Jan. 20-23 at the O'Hare Marriott Motor Hotel in Chicago will be "Portrait: Dynamic Leadership for '77." Special interest sessions slated for the program include "Cost of Care," "Quality of Care" and "Toward a National Health System—A Global Perspective." A seminar titled "Assault on Professionalism" will be the forum for a discussion of current and widespread attacks on the various professions. Seven optional seminars on topics not planned for the regular meeting will be offered on January 20.

57,236 MEDICAL STUDENTS, a total that includes 15,349 first-year students, were enrolled in the nation's 116 medical schools this fall, according to a survey conducted jointly by the AMA and the Association of American Medical Colleges. The total enrollment—a record number—represents a 29% increase from five years ago and is about 9.7% greater than last year's total. First-year enrollments this fall were 24% greater than the figure of five years ago and about 9.4% greater than last year. Women and minority student enrollments are about the same as last year. Women students represented 20.4% of total enrollment this year, while minority students made up 8.2% of total enrollment and 9.3% of the freshman class.

THE SOLUTION to physician reimbursement problems under Medicare "will occur only when Congress is willing to adopt a policy of reimbursing for services rendered at a level more nearly reflective of usual and customary charges," AMA Board of Trustees Chairman Raymond T. Holden, M.D., told the House Ways and Means Subcommittee on Health. The real issue, he said, is "promises versus payment by the federal government." Dr. Holden pointed out that charges recognized under Medicare have never led to inflation but, instead, have followed the inflationary spiral. Physician charges are based on data that is up to two years old, putting physicians in the position of absorbing today's increased costs while being reimbursed on the basis of yesterday's charges.

AN AD HOC COMMITTEE on Services to Young Physicians was recently established by the AMA Board of Trustees. The committee is composed of 11 members and will ascertain the needs of young, practicing physicians and make recommendations for the modification of existing AMA activities and the creation of new services. The members of the committee will be physicians who have been in private practice for not less than five nor more than ten years.

AVAILABLE FROM AMA: *A Guide to Planning Airport Emergency Medical Services*, OP-85, a new booklet on handling mass medical emergencies at airports. The cost is 85¢ each for 1-99 copies; 55¢ each for 100-499; and 50¢ each for 500 or more . . . *Medical Evaluation of the Athlete . . . A Guide*, OP-209, developed by the AMA's Committee on the Medical Aspects of Sports. The cost is 80¢ for all quantities . . . *Helping Hands: Horizons Unlimited in Medicine*, OP-160, describes opportunities available in the medical profession and is the successor to *Horizons Unlimited*. The booklet is 50¢ each for 1-99 copies; 45¢ each for 100-999; and 40¢ each for 1,000 or more. For all booklets, write Order Dept., AMA Headquarters.

medical melange

Notes of interest from Here

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and There

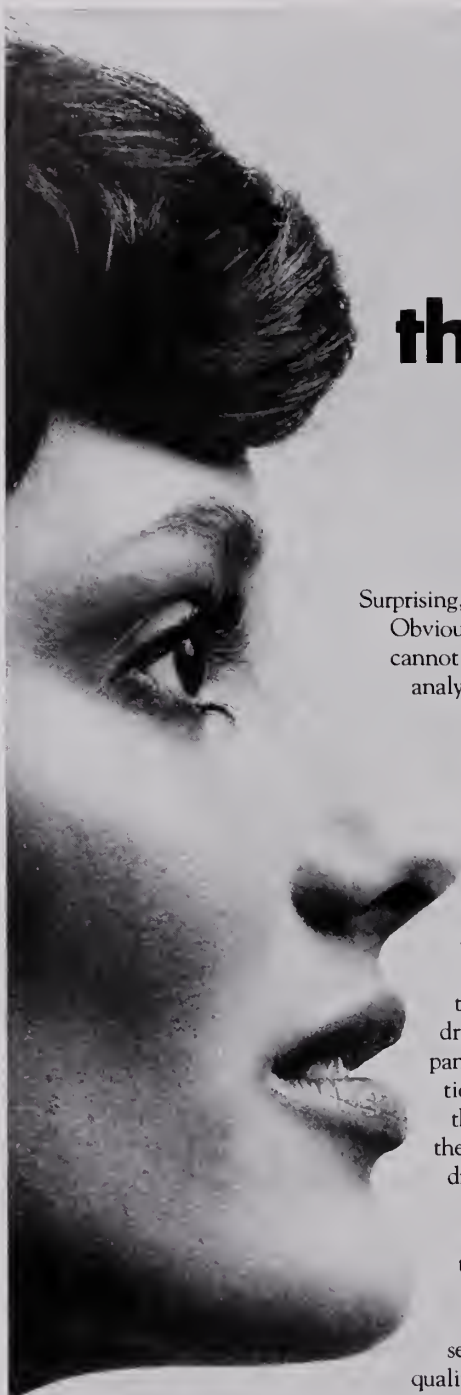
Oscar Perry Hampton, Jr., M.D., F.A.C.S. of St. Louis, consultant in trauma to the American College of Surgeons, received the College's 1976 Distinguished Service Award at the organization's 62nd Annual Clinical Congress in Chicago on October 14. The award was presented to Dr. Hampton in recognition of his "orthopaedic surgical career spanning nearly half a century . . . in appreciation of contributions . . . to his community and to the field of military medicine, where he richly deserved the rank of Brigadier General . . . and in tribute to an unsurpassed devotion to improved care for the injured patient." Dr. Hampton is a Past-President of St. Louis County Medical Society and the American Association for the Surgery of Trauma. He is a former vice-president of the Southern Surgical Association.

Dr. James A. Felts, St. Louis, was reelected speaker of the House of Delegates of the American Society of Anesthesiologists at the annual meeting of the 14,200-member organization on October 18 in San Francisco. He is assistant professor of anesthesiology at Washington University School of Medicine. Dr. Felts is a former president of the Illinois Society of Anesthesiologists and has served the ASA as vice-speaker of the House of Delegates, a member of the Board of Governors of the American College of Anesthesiologists and as a member of various ASA committees.

The Saint Louis University's Alumni Merit Award was presented to **Dr. Robert Emmet Kelly**, St. Louis, on October 24 at the annual Civic Dinner, which was attended by 1,200 St. Louisans. The Award is given annually to alumni "who exemplify the University's Creed to an eminent degree in their daily lives." Dr. Kelly graduated from the School of Medicine in 1932. He is assistant clinical professor in the departments of internal medicine and community medicine and has served as attending physician for the Medical School's teaching services at St. Louis City Hospital. He recently retired after serving as medical director of Monsanto Co. for 30 years and still works as associate physician at Sutter Clinic.

Dr. Norma Farmer was named "Woman of the Year" by the Business and Professional Women's Club of Farmington on October 18. Dr. Farmer received her 50-Year Pin from the MSMA in April and also was honored for her half century of devotion to medicine by the Women's Medical College in May. During 35 of her 50 years in medicine, Dr. Farmer served in India under the auspices of the Northern Presbyterian Church. She built and headed a 100-bed hospital south of Bombay and also served as residency surgeon on the political staff and cared for the Maha-Rani. She was a member of the commission for government of Bombay State to review all organizations dealing with medical care. Dr. Farmer is on the staff at the Farmington State Hospital.

Felix N. Sabates, M.D., Kansas City, received the Gold Medallion Award for distinguished service in ophthalmology at the annual fall meeting of the Missouri Ophthalmological Society on October 22-24 at the Lodge of the Four Seasons, Lake of the Ozarks. Dr. Sabates has served many years in the practice of ophthalmology and retinal surgery and is a past secretary-treasurer and president of the Society.



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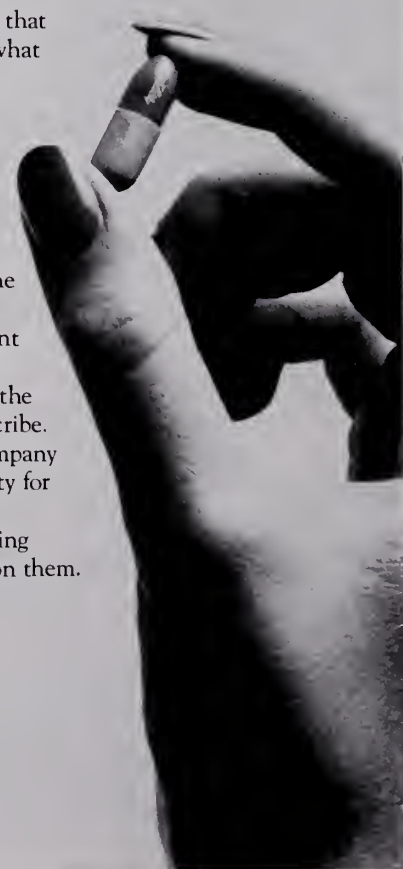
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THOMAS F. DeBARTOLO, M.D., and
JAMES R. ETZKORN, M.D., *St. Louis*

Conservative Management of Chylous Ascites After Abdominal Aortic Aneurysm Repair

Case Report

CHYLOUS ASCITES is a peritoneal effusion composed of lymphatic fluid with a fat content greater than plasma and a protein content approximately one half that of plasma. Its cause usually involves either obstruction or traumatic injury of a major lymphatic vessel.¹ It is a relatively rare clinical problem and an even rarer postoperative complication. This fact is illustrated in a study by Kelly and Butt of 30 years' admissions to the Mayo Clinic. They found only 79 patients with chylous ascites and only one case which developed as a postoperative complication.²

This article deals with chylous ascites developing in the postoperative period following the resection of an abdominal aortic aneurysm. In reviewing the literature, we found five case reports of postoperative chylous ascites. This review revealed a striking paucity of information about the natural history of such fistulas and their treatment.

CASE REPORT

A 67-year-old retired man with a history of alcohol abuse was admitted to the hospital in September, 1974 complaining of gradually increasing abdominal distention of one-week duration and orthopnea of two-days duration. The patient had had a repair of an atherosclerotic abdominal aortic aneurysm 16 days previously. The procedure had been complicated by a retroaortic left renal vein that was inadvertently entered as the

surgeons attempted to gain proximal control of the aorta above the aneurysm. The postsurgical course in the hospital was uneventful and the patient was discharged on the ninth postoperative day.

On physical examination, the abdomen was found to be markedly distended with a healing midline scar, shifting dullness and a fluid wave. Admission roentgenographic studies of the abdomen showed diffuse haziness with loss of the psoas margins bilaterally, while the chest films indicated a small pleural effusion on the left side.

Given the patient's history of alcoholism and the results of a liver biopsy taken at the time of operation and showing histopathological changes indicative of cir-

A patient developed chylous ascites after the severance of the cisterna chyli at the time of surgical repair of an abdominal aortic aneurysm. Conservative management resulted in the resolution of the ascites beginning two months after the onset of the fistula. A principal goal of this therapy is to maintain adequate protein balance in the patient during this prolonged period of healing to avoid unnecessary operative repair. The authors are from the Saint Louis University School of Medicine and the Department of Medicine, Saint Louis University Group Hospitals.

TABLE 1

ANALYSIS OF ASCITIC FLUID OBTAINED AT THE TIME OF DIAGNOSTIC PARACENTESIS

Gross description:	An off-white, odorless fluid of specific gravity 1.016
Microscopic:	Numerous fat droplets visualized after staining with Sudan III Cellular component: 118 WBC/mm ³ —100% lymphocytes, 1,748 RBC/mm ³
Cytological:	No atypical or malignant cells noted
Chemical analysis:	Ascitic fat content was 1.23 g per 100 ml Serum fat content was 0.4 g per 100 ml Ascitic protein content was 3.0 g per 100 ml Serum protein content was 7.2 g per 100 ml
Bacteriological:	No growth in two weeks

rhosis, treatment appropriate for ascites secondary to chronic liver disease was initiated. This included salt restriction, diuretics and bed rest. During the first four days, the patient's weight decreased 3 kg, his abdominal circumference decreased slightly and his complaints of orthopnea ceased. A repeat chest film showed complete resolution of the effusion on the left side. During this period, diagnostic paracenteses produced 1,000 ml of milk-like fluid that was demonstrated to be chylous (Table 1).

The surgeons who had performed the aneurysm repair were consulted. They were of the opinion that the chyle was accumulating from lumbar lymphatic vessels which were disrupted at the time of the operation and which join to form the lower portion of the thoracic duct at the level of the renal vessels. The patient's lymph vessels had increased susceptibility to disruption for such vessels have been shown to dilate five to ten times the normal size secondarily to increased hepatic lymph production in cirrhotic liver disease.

After the finding of chylous fluid in the peritoneum, a low fat-high protein diet was prescribed. Over the next few days, the patient gained 1 kg in weight, and his abdominal distention increased to greater measurements than were present at the time of admission, causing symptoms of dyspnea and general discomfort. A fluid restricted diet (1200 ml/Day) was started and therapeutic paracentesis (1000 ml/Day) was performed on three consecutive days. After the third paracentesis, subsequent abdominal taps were unnecessary because the patient's weight and abdominal distention stabilized and complaints of dyspnea did not recur. Twelve days after the last paracentesis, the patient was discharged to be observed as an outpatient by his private physician. A follow-up examination two months later showed the ascites to be clearly resolving. At six months, little or no ascites was present.

COMMENT

The clinical features of this case are typical when compared to the previously reported cases of postoperative chylous ascites. In each case, there was a slow accumulation of ascitic fluid that became

noticeable one week to one month postoperatively, causing the patient to experience increasing abdominal girth with vague abdominal discomfort. Although our patient was the only one of those in six cases to complain of dyspnea, this finding has been discussed in the more extensive literature dealing with all varieties of chylous ascites. In Vasko and Tapper's review of 140 patients with chylous ascites, dyspnea was a significant presenting complaint, especially among adults.³ In none of the six cases was the diagnosis of chylous ascites made without first performing a diagnostic paracentesis, and the fluid obtained was grossly described as being chylous or "milky." Finally, in each case, the etiology of the lymphoperitoneal fistula was considered to be due to either a tearing, severing or ligating of abdominal lymphatic vessels at the time of operation.

Accepting the fact that the cause of chylous effusion in the immediate postoperative period is secondary to severance or ligation of lymphatic vessels, experimental studies on regeneration of such acutely injured vessels become quite important in developing a plan of treatment. Reporting on the events following surgical transection of lymphatic vessels in the lower legs of dogs, Danese found that "a divided lymphatic vessel remains patent for several days in contradistinction to blood vessels which thrombose rapidly. After division, lymphostasis with dilation and increased permeability of the distal segment results in local tissue edema. Anatomic reconstruction takes place within several weeks."⁴

In studies in which silk ligatures were placed around lymphatic vessels, Danese again observed a period of lymph stasis followed by effusion and re-establishment of vessel continuity in approximately one month. These findings were supported by Ruszuyak, Foldi and Szabo who found that spontaneous healing of acute injuries to the thoracic duct was the rule and not the exception and that surgical treatment should be substituted for conservative treatment only if there is a persistent loss of chyle.⁵

Conservative treatment in postoperative chylous ascites usually involves repeated paracentesis, diets low in long-chain fatty acids and high in protein and, in unusual cases, parenteral nutrition. Paracentesis is necessary for diagnostic purposes, but we feel that its therapeutic use should be limited to the patient whose abdominal distention causes symptoms such as dyspnea, secondary lymphedema and severe discomfort. The main disadvantage of paracentesis in this type of patient is that it de-

pletes body protein and, thus, may jeopardize the patient's nutritional state. Frequency of paracentesis and the amount of chylous fluid removed must be related to the extent to which the patient can tolerate the loss of protein and the severity of symptoms one is attempting to alleviate.

In the case above, we felt that the patient's condition would be jeopardized by repeated paracentesis. In addition to the lymphoperitoneal fistula which limited the patient's utilization of ingested protein, he had an underlying protein-depleting condition—cirrhosis. He also was in the immediate postoperative period following a major operation, a time associated with greatly increased demands on endogenous sources of energy and increased protein catabolism. Lastly, if the patient did not respond to conservative therapy, an attempt at surgical closure of the fistula would likely be made and, as the nutritional status worsened, the risk of operative morbidity and mortality would increase.

The threat of clinically significant nutritional deterioration following repeated paracentesis is evident upon reviewing the conservative treatment of individual cases of postoperative chylous ascites described by Bradham *et al.*⁶ and Ikard.⁷ Each removed large volumes of chylous fluid via paracentesis, the former removing 22.7 liters taken on four separate occasions in a 35-day period, and the latter removing 1 liter to 4 liters of chyle on six occasions in a three-week period. In neither case did the repeated paracentesis affect the patency of the fistula. In both cases, they were unable to maintain the nutritional status of their patients while employing frequent paracentesis. They then attempted surgical repair of the lesions, the former two months after and the latter one month after the onset of the fistulas. Although both surgical repairs were successful, it was our feeling that the time allotted to a conservative plan of treatment was based more on how long the patient's jeopardized nutritional state could tolerate repeated abdominal taps rather than on an understanding of the time necessary for spontaneous repair of such lesions.

From our experience and information obtained in

prior case reports of postoperative chylous ascites, it appears that the time required for nonsurgical repair of severed or ligated lymph vessels after implementing conservative management varies considerably. In our case, the ascites began to resolve after two months. After six months, there was little if any ascites present. Rapid and complete resolution of chylous ascites over a six-week period requiring only one paracentesis was reported by Boyd and Wooldridge.⁸ Eight months were required in a case reviewed by Kelly and Butt in which initial treatment included a saphenoperitoneal shunt. The ascites was unaffected by the shunt, a procedure found by Vasko and Tapper to have little or no clinical value because the shunt fails to remain patent for a clinically significant period of time. Walker reported a case in which resolution occurred some nine months after the initial, unsuccessful therapy, which consisted of weekly paracenteses averaging 4 liters of chyle per tap, was discontinued.⁹

These cases lend clinical support to the experimental evidence of spontaneous lymphatic vessel repair following surgical trauma. However, they also indicate that the time required before seeing evidence of fistula closure and resolution of the ascites is not a matter of weeks but of months.

Therefore, a principal aim of conservative therapy becomes the maintenance of adequate protein balance in this prolonged period of healing to avoid unnecessary operative repair.

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Vaginal Adenosis

Case Report

CASE REPORT

The patient was a 17-year-old, married woman who was referred to the Gynecologic Outpatient Clinic at St. Luke's Hospital after she was found to have a suspicious or Class III cervical cytology at a screening center. The patient was symptom free and had taken oral contraceptive medication for three months prior to examination. Her past history was negative except for the history of the maternal usage of diethylstilbestrol (DES) during pregnancy because of uterine bleeding. Menarche was at age 11 with periods every 20 to 30 days with a 6- to 7-day flow.

The physical examination was normal except for the pelvic examination which revealed marked abnormalities of the cervix and vaginal vault (Fig. 1). A colposcopic examination revealed a polypoid structure protruding from and continuous with the posterior lip of the cervix (Fig. 2). There were areas of punctation and mosaicism on the anterior vaginal wall and on the right lateral vaginal wall (Fig. 3).

On April 13, 1973, a dilatation and curettage- and colposcopic-directed biopsies were performed. The histologic results were as follows:

- a) Endocervix—cystic dilated glands and squamous metaplasia.
- b) Endometrium—proliferative endometrium.

c) Right lateral vaginal wall biopsy—mucous glands under vaginal mucosa (Fig. 4).

d) Left lateral vaginal wall—normal tissue.

e) Anterior vaginal wall—mucous glands under vaginal mucosa.

f) Anterior lip of cervix—negative.

g) Posterior lip of cervix—mild to moderate dysplasia.

All other laboratory data were normal.

The patient received cryosurgery on May 7, 1973. She underwent cervical dilatation on Nov. 7, 1973 for cervical stenosis. No abnormal cytologic smears were detected subsequently. The last negative cytologic smear was on July 12, 1974. The patient has been lost to follow-up.

INTRODUCTION

The recent gynecologic problems of vaginal adenosis and clear cell adenocarcinoma of the vagina in young women whose mothers were treated with synthetic estrogens early in pregnancy were introduced into the literature in 1970. Herbst and Scully¹ reported on seven cases of adenocarcinomas, includ-

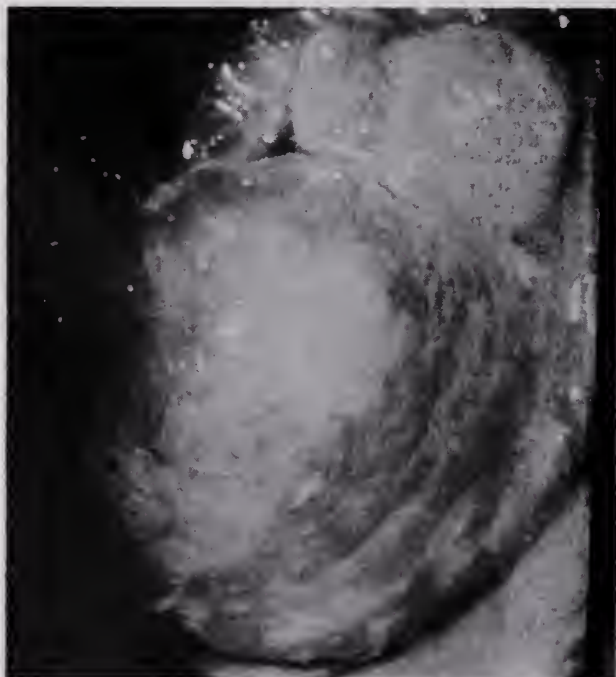


Fig. 1 Colposcopic view of cervix and vagina.

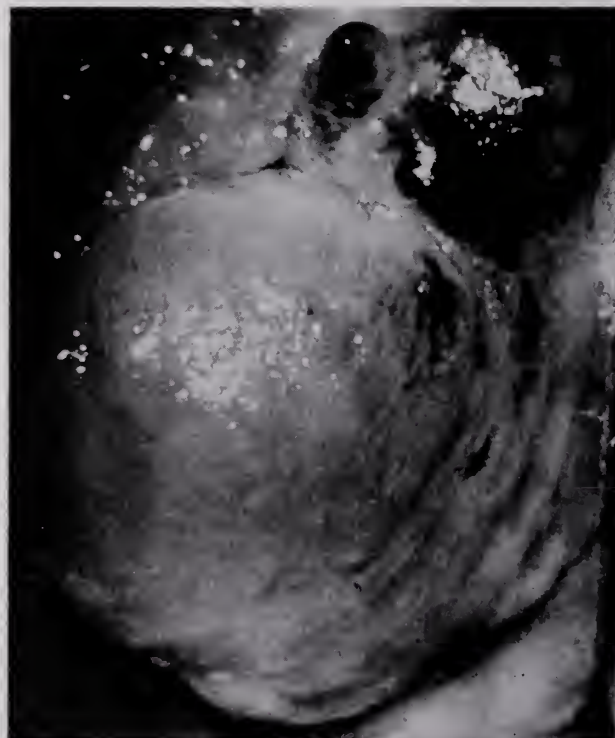


Fig. 2 Colposcopic view of posterior lip of the cervix.



Fig. 3 Colposcopic view of right anterior vaginal wall.

ing six clear cell carcinomas (so called mesonephromas) occurring between 1966 and 1969 in seven girls who were 15 to 22 years of age.

In 1971 Herbst, Ulfelder and Poskanzer² reported on a retrospective study involving the above-mentioned seven cases plus one additional case in an effort to search for factors that might be associated with this tumor appearance. The eight patients were studied along with four closely matched controls for each patient in an attempt to isolate associated factors. The significant factor included a higher incidence of previous pregnancy loss in the study mothers (ten losses in eight mothers) as compared to a previous loss of six pregnancies in 32 control mothers. In addition, three of eight study mothers experienced vaginal bleeding during the pregnancy in question compared with one in 32 of the control pregnancies.

This suggested that the eight pregnancies in question were considered more at risk than the control pregnancies. The most significant finding was that seven out of eight study mothers were given synthetic estrogen compounds as compared to none out of 32 of the control group. All estrogens were initiated during the first trimester of pregnancy and continued in either a constant dose administered throughout pregnancy or a continually increasing dose was given almost to term. The time of birth of these patients (1946 to 1951) coincides with the beginning of the widespread use of synthetic estrogen to support high-risk pregnancies as advocated by Smith in 1948.³

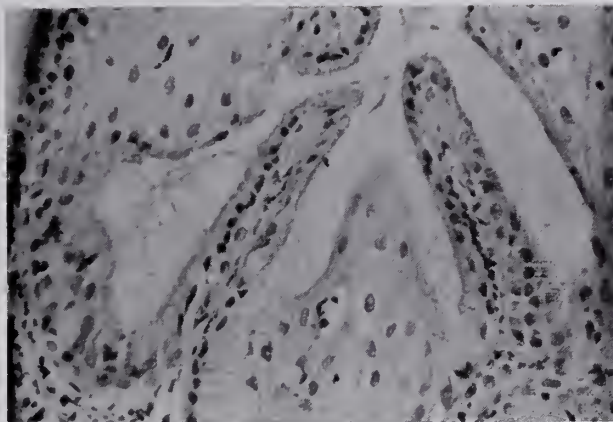


Fig. 4 Right lateral vaginal wall biopsy.

Subsequent reports have verified the association and have indicated that there probably is little, if any, dose relationship. The time sequence of administration prior to the 18th week of gestation is apparently essential. The synthetic estrogens were diethylstilbestrol (DES) and chemically related compounds, such as dienestrol and hexestrol.

As interest has been stimulated in the offspring of DES-treated mothers, the following associations have been described:

- 1) Clear cell adenocarcinoma in young females.
- 2) Benign vaginal adenosis.
- 3) Cervical erosion (presence of glandular tissue in the portio vaginalis of the cervix).
- 4) Cervical ridges (hood, coxcomb and cervical pseudopolyps).

VAGINAL ADENOSIS

Vaginal adenosis was initially defined as the presence of mucus-secreting columnar epithelium within or beneath the vaginal mucosa and now includes the presence of columnar epithelium over the surface of the vagina.

The first report of vaginal adenosis was presented by Von Preuschen (1877)⁴ and was based on finding the glandular changes in the vagina in post-mortem material. The term adenomatosis was used by Bonney and Glendining (1910)⁵ to describe a similar change with such involvement that the patient secreted 6 oz. of mucus daily. This finding was associated with extensive replacement of the vaginal epithelium with endocervical type columnar epithelium.

Plaut and Dreyfus⁶ in 1940 described three cases demonstrating these epithelial changes and offered the first comprehensive review of the literature pertaining to the lesion which is now known as vaginal adenosis.

Sandberg *et al* (1965)⁷ proposed a classification

This is the case report of a 17-year-old woman whose mother had taken diethylstilbestrol (DES) during her pregnancy. The authors discuss vaginal adenositis and clear cell adenocarcinoma. Drs. Green and Newman are from the Department of Obstetrics and Gynecology, St. Luke's Hospital. This paper was supported by the St. Luke's Hospital Foundation for Medical Education and Research.

of cystic, effluent, occult, adenomatosis and adenocarcinomatosis. The cystic variety may be evident as a single or multiple vaginal cyst and have a profuse mucoid discharge as the most striking clinical feature. The histologic pattern is that of mucous glands resembling those seen in the cervical canal. These glands lie close to the surface, which in areas is denuded of its squamous epithelium. The surrounding stroma may show edema, inflammatory change and fibrosis. The occult variety does not present with gynecologic symptoms but may be found in postmortem material of adult women in 41% of cases studied.⁸ Vaginal adenositis is not found in autopsy material of prepubertal girls.

In women exposed to DES in utero, vaginal adenositis is more common. Studies based on colposcopic examination and directed biopsies or a comprehensive examination of excised vaginas yielded an incidence of 82% to 91%.⁹⁻¹¹ Herbst *et al*¹² using just inspection, Schiller's reagent and biopsy, demonstrated vaginal adenositis in 38% of women studied. The disparity, in part, may be explained by both the method of study and, more importantly, the unresolved controversy as to what constitutes cervical vs. vaginal involvement.

The epithelium involved in adenositis is believed to be of Mullerian origin and may mimic the epithelium observed in the uterine cervix and, less often, the fallopian tubes and endometrium. Squamous metaplasia is frequently observed with adenositis. Burke *et al*⁹ observed the metaplastic change in 95% of cases studied.

Symptoms usually are minimal and are those of increased mucous secretion.

DIAGNOSIS AND SCREENING

The routine and precise examination of female offspring whose mother had received diethylstilbestrol (DES) during their pregnancy is important for detecting the relatively rare clear cell adenocarcinoma. It also is important for the evaluation

of the benign changes of vaginal adenositis in cervico-vaginal epithelium, the significance of which at present is unknown. The generally accepted criteria for screening included women whose mothers took synthetic estrogen during pregnancy or who took unknown medication for bleeding, threatened abortion or diabetes.

The offspring are examined as follows:

- 1) After menarche.
- 2) At age 14, if this occurs before menarche.
- 3) Anytime there is vaginal bleeding or discharge.

Malignant tumors rarely occur before menarche. Also, since adequate examination in prepubertal girls usually must be done under anesthesia, the risks of anesthesia outweigh the risk of malignancy and, hence, examination is not done without symptoms.^{12, 13}

The examination must include cytologic examination, complete visualization and palpation of the vagina and cervix, staining with iodine and biopsy of nonstaining areas. Iodine staining of the vagina and cervix will stain original squamous epithelium dark mahogany, but nonstaining areas may represent columnar epithelium, squamous metaplasia, inflammation, dysplasia or cancer. The process should detect the presence of clear cell adenocarcinoma, but it is imprecise in defining benign changes in the vagina and the extent and location of these lesions.¹⁴

Gross examination may reveal the following atypical findings:

- 1) Vaginal hood which is a circular fold in the vaginal fornices and sometimes partially covers the cervix. Staff¹⁴ considers the vaginal hood to be part of the vagina in contrast to Herbst and Townsend who considers it part of the cervix.
- 2) Coxcomb appearance of the anterior lip of the cervix.
- 3) Transverse ridges which are protruding circumferential bands in the upper part of the vagina which partially obliterates the cervix.
- 4) Cervical erosion. (Presence of glandular tissue in the portio vaginalis of the cervix)

Colposcopic examination has been a useful but not an essential tool to most authors in the evaluation of DES-exposed women. The colposcopic appearance of the columnar epithelium of adenositis is identical to endocervical columnar epithelium. It is believed that the low vaginal pH is the main stimulus for the glands of adenositis to undergo squamous metaplasia. In women not exposed to DES, the transformation zone usually involves just a portion of the ectocervix. In stilbestrol-exposed wom-

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(See next page for prescribing information.)



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WARNING—Lasix (furosemide) is a potent diuretic which if given in excessive amounts can lead to a profound diuresis with water and electrolyte depletion. Therefore, careful medical supervision is required, and dose and dose schedule have to be adjusted to the individual patient's needs. (See under "Dosage and Administration.")

Indications—Lasix (furosemide) is indicated for the treatment of the edema associated with congestive heart failure, cirrhosis of the liver, and renal disease, including the nephrotic syndrome.

Hypertension—Lasix (furosemide) may be used for the treatment of hypertension alone or in combination with other antihypertensive drugs. Hypertensive patients who cannot be adequately controlled with thiazides will probably also not be adequately controllable with Lasix (furosemide) alone.

CONTRAINDICATIONS—Because animal reproductive studies have shown that Lasix (furosemide) may cause fetal abnormalities, the drug is contraindicated in women of childbearing potential. (See "Additional Information.")

Lasix (furosemide) is contraindicated in anuria. If increasing azotemia and oliguria occur during treatment of severe progressive renal disease, the drug should be discontinued. In hepatic coma and in states of electrolyte depletion, therapy should not be instituted until the basic condition is improved or corrected. Lasix (furosemide) is contraindicated in patients with a history of hypersensitivity to this compound.

Warnings—Excessive diuresis may result in dehydration and reduction in blood volume, with circulatory collapse and with the possibility of vascular thrombosis and embolism, particularly in elderly patients. Excessive loss of potassium in patients receiving digitalis glycosides may precipitate digitalis toxicity. Care should also be exercised in patients receiving potassium depleting steroids.

Frequent serum electrolyte, CO₂, and BUN determinations should be performed during the first few months of therapy and periodically thereafter, and abnormalities corrected or the drug temporarily withdrawn.

In patients with hepatic cirrhosis and ascites, initiation of therapy with Lasix (furosemide) is best carried out in the hospital. Sudden alterations of fluid and electrolyte balance in patients with cirrhosis may precipitate hepatic coma; therefore, strict observation is necessary during the period of diuresis. Supplemental potassium chloride and, if required, an aldosterone antagonist are helpful in preventing hypokalemia and metabolic alkalosis.

Patients should be observed regularly for the possible occurrence of blood dyscrasias, liver damage, or other idiosyncratic reactions.

In those instances where potassium supplementation is required, an oral liquid preparation should be used rather than enteric-coated potassium salts.

There have been several reports, published and unpublished, concerning nonspecific small-bowel lesions consisting of stenosis, with or without ulceration, associated with the administration of enteric-coated thiazides with potassium salts. These lesions may occur with enteric-coated potassium tablets alone or when they are used with nonenteric-coated thiazides, or certain other oral diuretics.

These small-bowel lesions have caused obstruction, hemorrhage, and perforation. Surgery was frequently required, and deaths have occurred.

Available information tends to implicate enteric-coated potassium salts, although lesions of this type also occur spontaneously. Therefore, coated potassium-containing formulations should be administered only when indicated and should be discontinued immediately if abdominal pain, distention, nausea, vomiting, or gastrointestinal bleeding occurs.

Patients with known sulfonamide sensitivity may show allergic reactions to Lasix (furosemide).

Precautions—As with any potent diuretic, electrolyte depletion may occur during therapy with Lasix (furosemide), especially in patients receiving higher doses and a restricted salt intake. Electrolyte depletion may manifest itself by weakness, dizziness, lethargy, leg cramps, anorexia, vomiting, and/or mental confusion.

Asymptomatic hyperuricemia can occur and gout may rarely be precipitated. Reversible elevations of BUN may be seen. These have been observed in association with dehydration, which should be avoided, particularly in patients with renal insufficiency.

When parenteral use of Lasix (furosemide) precedes its oral use, it should be kept in mind that cases of tinnitus and reversible hearing impairment have been reported. There have also been some reports of cases in which irreversible hearing impairment occurred. Usually, ototoxicity has been reported when Lasix (furosemide) was injected rapidly in patients with severe impairment of renal function at doses exceeding several times the usual recommended dose and in whom other drugs known to be ototoxic were often given. If the physician elects to use high dose parenteral therapy in patients with severely impaired renal function, controlled intravenous infusion is advisable (for adults, it has been reported that an infusion rate not exceeding 4 mg Lasix [furosemide] per minute has been used).

Increases in blood glucose, and alterations in glucose tolerance tests with abnormalities of the fasting and two-hour postprandial sugar have been observed, and rare cases of precipitation of diabetes mellitus have been reported.

Lasix (furosemide) may lower serum calcium levels, and rare cases of tetany have been reported.

Patients receiving high doses of salicylates, in conjunction with Lasix (furosemide) may experience salicylate toxicity at lower doses because of competitive renal excretory sites.

Diuretics such as furosemide may enhance the nephrotoxicity of cephaloridine. Therefore, Lasix (furosemide) and cephaloridine should not be administered simultaneously.

Sulfonamide diuretics have been reported to decrease arterial responsiveness to pressor amines and to enhance the effect of tubocurarine. Great caution should be exercised in administering curare or its derivatives to patients undergoing therapy with Lasix (furosemide), and it is

advisable to discontinue Lasix (furosemide) for one week prior to any elective surgery.

Adverse Reactions—Various forms of dermatitis, including urticaria and rare forms of exfoliative dermatitis, erythema multiforme, pruritus, paresthesia, blurring of vision, postural hypotension, nausea, vomiting, or diarrhea.

Anemia, leukopenia, aplastic anemia, and thrombocytopenia (with purpura). Rare cases of agranulocytosis which responded to treatment.

In addition, the following rare adverse reactions have been reported; however, relationship to the drug has not been established with certainty: sweet taste, oral and gastric burning, paradoxical swelling, headache, jaundice, thrombophlebitis and emboli and acute pancreatitis.

Lasix (furosemide)-induced diuresis may be accompanied by weakness, fatigue, lightheadedness or dizziness, muscle cramps, thirst, increased perspiration, urinary bladder spasm, and symptoms of urinary frequency.

Dosage and Administration ADULTS

The usual adult dose of Lasix (furosemide) is 20 to 80 mg given as a single dose.

If the diuretic response with a single dose of 20 to 80 mg is not satisfactory, the following schedule should be used: Increase this dose by increments of 20 or 40 mg not sooner than 6 to 8 hours after the previous dose until the desired diuretic effect has been obtained. This individually determined single dose should then be given once or twice daily. The dose of Lasix (furosemide) may be carefully titrated up to 600 mg per day in those patients with severe clinical edematous states.

With doses exceeding 80 mg/day and given for prolonged periods, careful clinical and laboratory observations are particularly advisable.

Hypertension—The usual dose of Lasix (furosemide) is 40 mg twice daily both for initiation of therapy and for maintenance. Careful observations for changes in blood pressure must be made when this compound is used with other antihypertensive drugs, especially during initial therapy. The dosage of other agents must be reduced by at least 50 percent as soon as Lasix (furosemide) is added to the regimen to prevent excessive drop in blood pressure. As the blood pressure falls under the potentiating effect of Lasix (furosemide), a further reduction in dosage, or even discontinuation, of other antihypertensive drugs may be necessary. It is further recommended, if 40 mg twice daily does not lead to a clinically satisfactory response, to add other hypotensive agents, e.g., reserpine, rather than to increase the dose of Lasix (furosemide).

INFANTS AND CHILDREN

Pediatric Administration: The usual initial dose of oral Lasix in infants and children is 2 mg/kg body weight, given as a single dose. If the diuretic response is not satisfactory after the initial dose, dosage may be increased by 1 or 2 mg/kg not sooner than 6 to 8 hours after the previous dose. Doses greater than 6 mg/kg body weight are not recommended.

For maintenance therapy in infants and children, the dose should be adjusted to the minimum effective level.

How Supplied—Lasix Tablets 40 mg (furosemide) supplied as white, round, monogrammed, scored tablets.

Lasix Tablets 20 mg (furosemide) supplied as white, oval, monogrammed tablets.

Note: Dispense in dark containers. Exposure to light may cause slight discoloration which, however, does not alter potency.

Additional Information

Toxicology

The acute toxicity of Lasix (furosemide) has been determined in mice, rats, and dogs. In all three animal species, the oral LD₅₀ of Lasix (furosemide) exceeded 1000 mg/kg of body weight, while the intravenous LD₅₀ ranged from 300 to 680 mg/kg. Intragastric injection of the drug in newborn rats resulted in an LD₅₀ of 380 mg/kg.

The acute toxicity of high doses of Lasix (furosemide) was characterized by convulsions, paralysis, and collapse. Surviving animals often became dehydrated and depleted of electrolytes due to the diuresis induced by Lasix (furosemide). In the newborn rats, intragastric injection of the drug caused hyperactivity and anorexia.

Chronic toxicity studies with Lasix (furosemide) were done in rats and dogs. In a one-year study in rats, renal tubular degeneration occurred, with all doses higher than 50 mg/kg (4 times the maximal recommended human dose of 600 mg per day). A six-month study in dogs revealed calcification and scarring of the renal parenchyma at all doses above 10 mg/kg (83 percent of the maximal recommended human dose of 600 mg per day).

Reproductive Studies

The effects of Lasix (furosemide) on embryonic and fetal development and on pregnant dams were studied in mice, rats, and rabbits.

Lasix (furosemide) caused unexplained maternal deaths and abortions in the rabbit when 50 mg/kg (4 times the maximal recommended human dose of 600 mg per day) was administered between days 12 to 17 of gestation. In a previous study the lowest dose of only 25 mg/kg (2 times the maximal recommended human dose of 600 mg per day) caused maternal deaths and abortions. In a third study, none of the pregnant rabbits survived a dose of 100 mg/kg. Data from the above studies indicate fetal lethality which can precede maternal deaths.

The results of the mouse study and one of the three rabbit studies also showed an increased incidence of hydronephrosis (distention of the renal pelvis and, in some cases, of the ureters) in fetuses derived from treated dams as compared to the incidence in fetuses from the control group.



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en, the transformation zone is much more extensive and sometimes involves the entire vagina. Staff suggests that the possibility of neoplastic transformation by some mutagen, which is present in the vagina, is significantly higher in DES-exposed girls.¹⁴

In a study of 200 DES-exposed girls, Staff¹⁴ found three cases of carcinoma-in-situ, two cases of severe dysplasia and three cases of moderate dysplasia in the vagina. Lanier *et al*¹⁵ from the Mayo Clinic detected four cases of carcinoma-in-situ of the vagina in 818 females examined because of DES exposure in utero. Most girls exposed to DES are now less than 25 years of age and have not yet reached the peak age associated with the highest incidence of squamous neoplasia. In prospective colposcopic studies of DES-exposed women, so far no clear cell adenocarcinoma has developed nor are precancer changes toward clear cell adenocarcinoma reported.¹⁴

MANAGEMENT OF VAGINAL ADENOSIS

Most therapeutic approaches have been based on the assumption that adenosis is the precursor of clear cell adenocarcinoma. That belief stems from the invariable association of adenosis with clear cell adenocarcinoma.¹³ Plaut and Dreyfus⁶ concluded in the pre-DES era that clear cell adenocarcinoma of the vagina originated in adenosis in most instances. To date, however, no women with adenosis have been observed to develop adenocarcinoma during the period of surveillance. No clear-cut gradation from adenosis to clear cell adenocarcinoma has been described. The most radical approach to adenosis has been described by Sherman and associates¹⁰ who performed partial vaginectomies on 188 patients.

Herbst *et al*¹⁶ have made a preliminary report on the use of progesterone suppositories to promote the replacement of adenosis by squamous epithelium. Acidification has been suggested for induction of squamous metaplasia. Bellina¹⁷ has used the CO₂ Laser to irradiate adenosis.

Until more is known about the natural history of vaginal adenosis, a logical approach is frequent physical examination to include iodine staining and biopsy where indicated. The colposcope, while not essential, is helpful in evaluating these patients.

CLEAR CELL ADENOCARCINOMA OF THE VAGINA

Cancer of the vagina is rare and usually of an epidermoid type occurring in the vagina of women over 50 years of age. Between 1966 and 1969, seven girls of ages 15 to 22 were seen with adenocarcinoma of the vagina at the Vincent Memorial Hos-

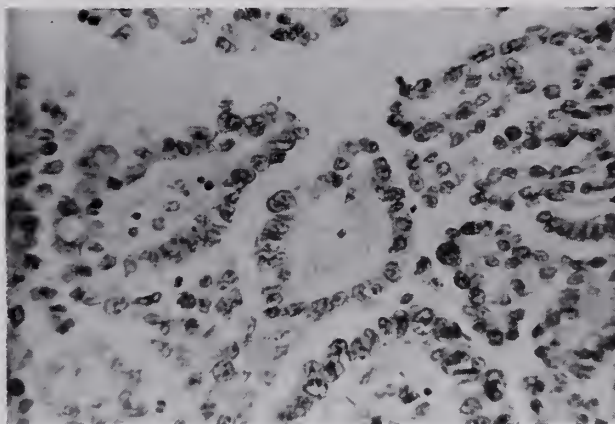


Fig. 5 Clear cell adenocarcinoma of the vagina.

pital.¹ Shortly thereafter, the association of the maternal use of DES while pregnant with the affected patients was demonstrated.²

INCIDENCE

One estimate placed the risk at not more than four in 1,000 exposed girls,¹⁵ but it would appear from current registry data that it is much less, at least, for women under 25 years of age.¹³

The information on age, presenting symptoms and cytology is summarized from Registry data by Herbst.¹³

Age. The youngest patient reported is seven years of age, the oldest is 27 years of age with an average of 17.4 years. The presenting symptom of 75% of patients is bleeding or discharge, but 16% were symptom free. Cytology was suspicious or positive in 76% of cases and was negative in 21% of cases.

Clinical appearance. The primary tumor affects any region of the vagina. Large tumors frequently involve much of the length and circumference of the vagina. Approximately three-fourths of the tumors have a surface area of less than 12 cm² and the majority of these are located in the upper third of the anterior vaginal wall. Approximately one-fifth are confined to the posterior wall of the upper vagina. The smallest tumor in the Registry is 3 mm in diameter and the largest is more than 20 cm. Most tumors are polypoid or nodular and tend to be soft, friable and variegated in color. Less often, the lesion will be flat, indurated and granular in appearance.

Histologic appearance. On microscopic examination, clear cell adenocarcinoma of the vagina and cervix are similar to those of the ovary and endometrium. They have several characteristic patterns, including sheets of cells, tubules and cysts which sometimes contain highly developed papillae. The most common cell types are clear cells in

TABLE 1

Stage	Vaginal	Cervical
I. Confined to vagina		Confined to cervix
II. Extends into paravaginal tissue		a) Extends into upper 2/3 of vagina b) Extends into paracervical tissue
III. Reaches pelvic wall		Extends into lower third of vagina and/or reaches pelvic wall, or hydronephrosis or nonfunction of kidney secondary to tumor is present
IV. Extends outside pelvis or involves mucosa of bladder or rectum		Extends outside pelvis or involves mucosa of bladder or rectum

* The exocervix may be involved. If the external os contains tumor, the malignancy is assigned to the cervical category.

which the abundant cytoplasm is filled with glycogen and hobnail cells, which are characterized by bulbous nuclei that protrude into the lumens of tubules and cysts (Fig. 5).

STAGING AND TREATMENT

FIGO criteria have been used for staging and classification of the tumor (Table 1).

THERAPY

Many modes of therapy have been used, but there are not enough data to determine the optimum mode of therapy. In general, the smaller tumors, that is Stage I and IIa, require radical surgical or radiation therapy. Pelvic lymphadenectomy probably should be done. The incidence of positive nodes from Stage I lesions of both cervix and vagina is reported to be 17%. The incidence of positive nodes from a vaginal lesion Stage II is reported to be 30%. From a cervical lesion, Stage II is reported to be 60%.

Registry data suggest that postoperative radiation should be given if pelvic node metastases are found at operation. If the common iliac nodes are positive, extension of the treatment field to include the aortic nodes should be considered.

Recurrence. Among 154 Registry cases for which follow-up data were available, 37 patients had persisting or recurrent tumor after therapy.¹⁸ The most common site of recurrence in Registry data is the pelvis (53%) followed by the lung with 22% and supraclavicle nodes with 13%. Annual chest x-ray should be part of the follow-up examination of all patients with clear cell adenocarcinomas. Exenteration probably should be reserved for the management of cases recurrent after irradiation therapy.

SUMMARY

The case report of a 17-year-old woman whose mother had taken diethylstilbestrol during her pregnancy is presented. Vaginal adenosis was an incidental finding in the patient who was examined because of suspicious cervical cytology. Clear cell adenocarcinoma was discussed and the incidence is quoted as being less than 1/1000 exposure. The presenting symptom usually is bleeding and the treatment usually is surgery or radiation or both. Vaginal adenosis is much more common, occurring in perhaps 90% of girls exposed in utero to diethylstilbestrol. The natural course of vaginal adenosis is to undergo squamous metaplasia. It is possible that this epithelium may be subject to neoplastic change and that as girls reach the peak age for squamous cell carcinoma, there will be an increase in squamous cell carcinoma of the vagina and cervix. The natural history of vaginal adenosis is unknown. Therefore, affected women must have complete periodic examinations including iodine staining and biopsy, if indicated. Treatment of vaginal adenosis is controversial at present if, indeed, any treatment is needed. The colposcope is helpful but not essential to the management of these patients.

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Pediatric Ingestions and Poison Control

THE INGESTION OF POISONS by children occurs daily, involves a myriad of substances, is associated with complex social problems and is of prime importance to the primary care physician. The emergency room personnel of St. Louis Children's Hospital (SLCH) maintain a poison control center which includes a microfilm and card file of thousands of chemical and pharmaceutical agents, standard references on poisonings and a direct telephone line to receive inquiries about ingestions. In an effort to improve our poison control services, we surveyed the ingestions encountered during 1975.

OBJECTIVES

The objectives of this study were to compare our experience with national data by age, sex, time of day and the substance ingested. The accuracy of information given to parents by physicians was assessed as well as the medical personnel who provided this information.

The aim of the follow-up study was to determine parental satisfaction with treatment and to learn if the ingestion had prompted a change in the patient's environment or in the parents' method of protecting the child from further accidents. Specifically, the parents were asked if the child had sustained another ingestion or accident either before or after the one included in this study.

METHODS

The Part I surveillance of ingestions involved the completion of a questionnaire by medical personnel (nurse, physician, etc.) answering the telephone, managing the patient in the emergency room or treating the patient in the hospital. The Part II telephone follow-up was conducted from one to four months after the ingestion and involved a two- or three-minute conversation with the parent while the inquiring physician completed a questionnaire. Before omitting a case selected for follow-up, three efforts were made to reach the parent by telephone. Cases were selected for follow-up calls if they involved a hospital admission, emergency room visit or complicated phone inquiry.

RESULTS

In Part I of this study, there were 505 encounters regarding poisoning from Aug. 2, 1975 to Dec. 18, 1975. The type and quantity of the ingested was considered significant if there was any potential harm to the patient. Fifty-five percent (55%) of the encounters were considered significant and 45% were not. Telephone consultation alone comprised 414 of the 505 encounters (82%); of these, 90% were answered by a nurse without physician involvement. During the four-month period studied, there were 71 emergency room visits (14% of encounters) and 20 hospital admissions (4% of encounters). Nationally, the sex ratio for ingestors is 3 : 2 male to female.¹ Our survey found 56% males and 44% females, for a ratio of 2½ : 2.

Virtually all ingestions occurred between the hours of 6 AM and midnight. Ingestions were more frequent before meal times at 11 AM and 5 PM. The median age of these children was 2.4 years, which is similar to the national figure.² It is of interest that 25 (5%) of our patients were infants less than one year of age. There was an increased occurrence in the late teen years (usually "suicide attempts") with few cases between six and 13 years of age. The most frequently ingested agents were hydrocarbons (9%), detergents (8%) and salicylates

During a four-month period, 505 children who had ingested poison were reported by telephone or examined at St. Louis Children's Hospital. Survey results reveal circumstances surrounding the ingestion and subsequent changes in the child's environment. The authors give criteria for selecting "high risk" patients and suggestions for maintaining contact with them.

The authors are from the Edward Mallinckrodt Department of Pediatrics, Washington University School of Medicine and the Division of Ambulatory Pediatrics, St. Louis Children's Hospital.

TABLE 1
AGENTS MOST COMMONLY INGESTED

SLCH 1975 (N=505)	National (1970-1973)	National (1959-1961)
1. Hydrocarbons (9%)	1. Salicylates (6.5%)	1. Salicylates (26%)
2. Detergents & Soaps (8%)	2. Detergents & Soaps (5%)	2. Detergents & Soaps (5%)
3. Salicylates (8%)	3. Plants (5%)	3. Bleach (5%)
4. Cosmetics (7%)	4. Vitamins & Minerals (5%)	4. Vitamins & Minerals (5%)
5. Plants (7%)	5. Cold Medicines (5%)	5. Insecticides (3%)
6. Vitamins & Minerals (6.5%)	6. Cosmetics (3%)	6. Plants (2.5%)
7. Alcohol Products (6%)	7. Disinfectants & Deodorants (3%)	7. Polishes & Waxes (2%)
8. Sedatives (4%)	8. Miscellaneous Medicines (3%)	8. Hormones (2%)
9. Bleach (3%)	9. Sedatives (3%)	9. Tranquilizers (2%)
10. Oils (3%)	10. Bleach (3%)	10. Other Analgesics (2%)
	11. Hydrocarbons (2%)	

(8%). Table 1 compares poisonous agents in our survey with National Clearinghouse statistics.³ The decreased incidence of salicylate ingestion demonstrated nationally between the time periods of 1959-1961 and 1970-1973 continues to the present, according to this study.

The 20 patients hospitalized for their ingestion

TABLE 2
AGENTS INGESTED REQUIRING HOSPITALIZATION
Hospital Admissions for 1975

Age	Agent Group	No. of Patients
0- 1 year	Hydrocarbons	1
	Theophylline	1
	Detergents-cleaning agent	2
1- 2 years	Prolixin	2
	Hydrocarbons	5
	Detergents-cleaning agent	2
	Thorazine	1
	KMnO ₄	1
2- 3 years	Caustics (lye)	1
	Phenobarbital	2
	Hydrocarbons	1
	Detergents-cleaning agent	1
	Plant (privet berry)	3
3- 4 years	Unknown	1
	Ethanol	2
	Caustics (lye)	1
	Tofranil, valium	1
4- 5 years	Dilantin	2
5- 6 years	Barbiturate	1
	Battery acid	1
6- 7 years	Salicylates	1
	Plant (privet berry)	1
12-13 years	Tenuate	1
	Unknown	1
13-14 years	Phenobarbital	1
14-15+ years	Valium	1
	Hydrocarbons	1
	Dilantin	1
	Tofranil	1

during Part I of our study were included in an evaluation of all 41 patients hospitalized during 1975 at St. Louis Children's Hospital. The time of day when the ingestion occurred was similar for hospitalized and nonhospitalized patients. The age distribution and sex ratio were likewise similar in both groups. Agents ingested are correlated with the patients' ages in Table 2 to demonstrate the wide variation in substances accessible to children. There were no deaths due to ingestions during the year of the study.

Results of Part II were tabulated from 88 patients successfully contacted of 100 selected for the telephone follow-up. Of these follow-up cases, we had first encountered 20% of the patients as telephone inquiries, 67% in emergency room visits and 13% in hospital admissions. Results indicated that the substance ingested was not packaged with a safety proof cap in 70% of the cases studied. The item was not stored "out of reach" of the child in 77% of the cases. The accident occurred outside of the home 26% of the time. Further findings indicated that the storage place of the item ingested was not changed subsequently in 20% of the cases and that 10% of the parents were uncertain of the current location of the item at the time of our telephone inquiry. There was an association with other ingestion incidents in 25% of our follow-ups. In 16%, a separate ingestion had occurred before the ingestion included in our survey and 9% ingested a toxic substance following the one surveyed. Since the ingestion in 1975, 20% of these children had sought medical attention for an injury or accident. Of the parents telephoned, 14% believed their child to be "accident prone," 8% described the child as "hyperactive" and 22% noted that the child "gets into things" more frequently than do other children they had observed.

As a measure of parental satisfaction with our hospital, we sought parental evaluation of treatment received and found that 88% were "pleased." The criticisms most frequently mentioned by the parents were excessive waiting time, medical personnel being "critical of the parent," the need for a venipuncture and a lack of follow-up care. Primary care in pediatrics optimally includes education of the parents on how to prevent poisonings and how to administer emergency first aid. One unexpected finding was that hospital personnel recommended to only 22% of the parents that syrup of ipecac be kept in the home, although only 5% of the parents would have refused to buy or use this product had this been suggested to them.

CONCLUSIONS

Part I

Patients profiles of ingestors were comparable to national data with respect to age and sex. Virtually all ingestions occurred during waking hours (6 AM until midnight) with peaks in the late morning and late afternoon. Agents ingested were similar to those in national data except for an unexplained higher incidence of hydrocarbon ingestions in our study (9% vs 2%). The telephone inquiries at the time of ingestion were predominantly provided by a nurse with little physician involvement at our center. Information and treatment given were found to be accurate and appropriate. Hospitalized ingestors had age, sex, hour of occurrence and agent-ingested data comparable to the telephone inquiry group. Older hospitalized pediatric patients were associated with "suicide attempts."

Part II

Ingestions usually occurred under preventable circumstances. Ingestion prompted a change of storage method in most cases. Therefore, those cases in which no change occurred were of concern to us. Although useful and well-received by parents, the use of syrup of ipecac was not usually taught by hospital personnel working in this Poison Control Center. The association of accidents and injuries with ingestions is not usual but may deserve special professional attention when present. Previous and subsequent ingestions occurred in 25% of our patients, so one ingestion does not prevent a recurrence in the absence of education. Parental approval of hospital treatment was high even

though we found deficits in parental education by our medical personnel.

DISCUSSION

Information concerning child abuse and neglect frequently suggests that we should consider repetitious injuries, accidents and ingestions as warnings of possible subsequent physical abuse or deprivation. It is obvious that prevention, if possible, is far superior to treating *post facto* the multifaceted problem of abuse-neglect. Speaking of child injury, Newberger and Hyde⁴ advise that "Understanding its origin and identifying what can be done to strengthen the child's environment might better be the goal of diagnosis of child abuse." Therefore, this study has prompted us to initiate a system of poison control surveillance at St. Louis Children's Hospital in which a social worker from our Child Abuse Management Team collects encounter questionnaires completed by medical personnel for each "poison" telephone call, emergency room visit or hospitalization. In reviewing these forms, all except insignificant telephone calls receive a follow-up call within a month of the patient's ingestion. By this means, parents may be urged to attend a counseling meeting with a social worker, receive additional telephone discussions or institute a home visit. "High risk" cases may be referred to our Family Resource Center, a hospital-operated agency for continued counseling of known or potentially negligent or abusive parents. Patients may be at "high risk" if they have two or more of the following criteria: a history of other ingestions; parental belief that the child is accident prone, unhealthy or emotionally disturbed; evidence of a poor environment or poor supervision; social problems in the family (e.g., recent divorce); or parental displeasure with hospital treatment.

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President's Message

On Nov. 3, 1976, the first Interim Session of the MSMA House of Delegates was held for the purpose of considering matters of possible legislation to be introduced for consideration by the new legislature in January, 1977.

Dr. Jack Matthews, Chairman of the Committee on Legislative Affairs, announced at the meeting that there has been a 30% turnover in the membership of the 1977 Legislature as a result of the November 2 election. Most important, this will bring about a complete change in the leadership in both the Senate and the House as well as committee assignments.

Dr. Matthews also stated that it will take a great deal of work to make new friends among the new representatives in the legislature in order to help pass legislation favorable to organized medicine.

Approximately 125 delegates attended the meeting. In my opinion, this represents a rather fair percentage since we have never had 100% attendance of the delegates even at the Annual Session in the spring.

Approximately 20 resolutions were presented and acted upon by two reference committees—the Reference Committee on Miscellaneous Affairs and the Reference Committee on Constitution and Bylaws. A full report will be given in the minutes of the meeting that will be published in *MISSOURI MEDICINE*. The reference committees were well attended and the discussions were lively and to the point.



Max S. Franklin, M.D.

I believe much was accomplished from this, our first interim meeting of the House of Delegates. I hope all of the delegates who attended will discuss their feelings in regard to further interim meetings with the members of their districts so that when they come to the Annual Session in April, they can vote on a change in the Constitution and Bylaws which will permit an annual Interim Session of the House of Delegates. In my opinion, this change in the Constitution and Bylaws is merited.

Although my own resolution against federal licensure and relicensure was changed enough to make me feel and say that the resolution had been circumsised, I believe that there was enough of it left to give a firm understanding of what was meant. I warned the House of Delegates that with the appearance of a new President of the United States on the scene, the medical profession and our medical practice, as we know it today, will become "Carterized" (misspelling intentional). I made the prophecy that if this takes place, as I am sure it will, there will be stronger resolutions to come forth in future conventions and I hope that there will be less anatomical mishandling of these stronger resolutions.

I hope that the delegates who attended the Interim Session will consider very carefully how to vote at the next convention in order to continue these interim meetings. Again, I must repeat that in my opinion, it seems worthwhile to have these meetings to discuss possible or future legislation in regard to organized medicine.



Woman's Auxiliary

*"If you would create something,
you must be something."*

—GOETHE, 1749-1852

At the MSMA Auxiliary's State Fall Conference in October, two new programs were introduced, each designed to be implemented on the county level. They represent the cooperative efforts of the Auxiliary and health-related groups responding to specifically-identified Community and Family Health concerns.



Mrs. George P. Wilson
President

A Mother-Daughter Educational Program on *Breast and Uterine Cancers* is uniquely structured to be utilized with equal effectiveness by an entire Auxiliary or a single member. Its focus is based on the recognition of the need for educating young women and, through them, their mothers. The vast resources and generous cooperation of the Missouri Division of the American Cancer Society has made this program a reality, and we are deeply grateful for their advice and assistance. Three pilot programs in Boone County high schools have been carefully evaluated, and suggestions have been forwarded to auxiliaries presently planning this program in their communities.

Increasing interest in child abuse and neglect resulted in an intensive Conference seminar on *Childhood Protection* conducted by two eminent authorities—Giulio Barbero, M.D. and Eleanor Shaheen, M.D., professors and co-chairmen, Department of Pediatrics, University of Missouri School of Medicine. They were joined by Mrs. Jeanette Cobb, ACSW, psychiatric social worker who pioneered the development of the Kansas City Child Abuse Unit. Focus on *prevention* through understanding and early identification of the potential problem has been combined with *education* on specific projects developed to meet the variety of community needs. *Recognition* of childhood protection as a community responsibility necessitates compassionate *involvement* by knowledgeable individuals. Believing that our Auxiliary members are natural catalysts for initiating action where need is demonstrated, this seminar has provided the framework of educational and resource data for effecting constructive measures.

Mrs. G. W. N. Eggers, Jr., Community/Family Health Chairman, brings prestige to Missouri's Auxiliary through her development and implementation of these state programs. As a concerned parent and a physician, she combines personal dedication and professional expertise for the Auxiliary's benefit. Mary Eggers represents the quality leadership of which we have long been proud. Our appreciation for her work will best be expressed as we continue to extend her creative programs throughout Missouri.

$\frac{20}{150}$

H

$\frac{20}{100}$

E A R

$\frac{20}{70}$

I N G I S

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A S P R E C I O U S

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A S S I G H T H A V E

$\frac{20}{30}$

Y O U H A D Y O U R H E A R I N G

$\frac{20}{20}$

T E S T E D L A T E L Y A S I M P L Y

$\frac{20}{15}$

C O M F O R T A B L E H E A R I N G

$\frac{20}{10}$

I N V E S T M E N T O F A F E W M I N U T E S

Hearing losses are among the most consistently neglected health problems. Many

people with them won't even admit it to themselves, let alone others. A little encouragement may start them thinking about themselves more realistically.

That's why we're offering you the poster shown here. You can hang it on the wall or stand it on a small table. It comes with booklets called "As

precious as sight" that give your patients some basic facts about auditory testing and hearing losses and how easy they are to correct in many cases.

Write to us for your free poster and booklets. They just might help you to help some patients who aren't hearing as well as they used to. Even those who ordinarily wouldn't hear of it.

Professional Relations Division, Beltone Electronics Corporation
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Beltone
WHEN A HEARING
AID WILL HELP

County Society News

FIRST DISTRICT

COUNCILOR

JOHN N. MARTIN, M.D., ST. JOSEPH

BUCHANAN COUNTY MEDICAL SOCIETY

The October meeting of the Buchanan County Medical Society was held at the Moila Club in St. Joseph on October 6. A dinner and business meeting preceded the scientific program.

The speaker was William T. Sirridge, M.D., professor of medicine at the University of Missouri-Kansas City School of Medicine. He discussed "Current Office Management of the Hypertensive Patient."

Dr. Marjorie S. Sirridge accompanied her husband to the meeting.

Dr. Gordon S. Paulson introduced Dr. Sirridge. Thirty-two St. Joseph and area physicians attended the program.

Dr. Edmund W. Kline presided at the session.

CARL K. NESS, M.D. *Secretary*

SECOND DISTRICT

COUNCILOR

J. RUSSELL COMER, M.D., NEW LONDON

CHARITON-MACON-MONROE-RANDOLPH COUNTY MEDICAL SOCIETY

The Chariton-Macon-Monroe-Randolph County Medical Society held its regular monthly meeting on October 14 in the Library Conference Room of Woodland Hospital in Moberly.

In attendance were Drs. Antonio Aguilera, R. L. Bautista, C. C. Cohrs, W. D. Chute, J. Will Fleming, Jr., T. S. Fleming, L. E. Huber, G. R. Hudson, Jose Hori, C. H. Lin, H. T. Lin, Ruel Miciano and D. C. Yang of Moberly; J. E. Campbell of Macon; P. V. Dreyer of Huntsville; F. A. Barnett of Paris; and F. L. Harms of Salisbury.

Dr. Bautista, Vice-President, presided in the absence of President D. E. Eggleston.

Officers elected for the year, 1977, are as follows:

President, Dr. R. L. Bautista; Vice-President, Dr. R. V. Tompson; and Secretary-Treasurer, Dr. G. R. Hudson.

Delegates to the Missouri State Medical Association are Drs. D. D. Stuart, Chariton County; J. E. Campbell, Macon County; F. A. Barnett, Monroe County; and Dr. G. R. Hudson, Randolph County.

Alternate Delegates are Drs. F. L. Harms, D. E. Eggleston, W. D. Chute and C. C. Cohrs. Members of the Board of Censors are Drs. Stuart, Campbell, Barnett and Chute.

The program was presented by Dr. Elizabeth James, chief of neonatology services at the University of Missouri Medical Center. Her subject was "The Care of Premature Infants."

Dr. James discussed the many types of problems and pathologic conditions encountered in the care of the premature infant and the classification of the severity of these problems. She described the special equipment and personnel required for an Intensive Care Nursery and emphasized the necessity for 24-hour attendance by specially trained nurses and a pediatrician. She said that the team approach by well-trained, dedicated people is the most important factor.

In describing the services of her department, Dr. James said that ambulance-medical teams are sent out to get premature babies. For more distant areas, the Missouri Highway Patrol provides a plane on 30-minutes notice to transport a medical team to get the premature infants in distress.

A question-and-answer period followed the presentation.

The next meeting of the Society will be on November 11 at Woodland Hospital.

G. R. HUDSON, M.D., *Secretary*

TENTH DISTRICT

COUNCILOR

EUGENE T. HANSBROUGH, M.D.,
POPLAR BLUFF

DUNKLIN COUNTY MEDICAL SOCIETY

Dr. Wuthisak Soonattrakul was elected President of the Dunklin County Medical Society for 1977 at the October 18th meeting at Dunklin County Memorial Hospital.

Other officers elected were Drs. John Rigdon, Vice-President; Quinton Tarver, Secretary-Treasurer; George Dunmire, Delegate to the MSMA; John K. Legan, Alternate Delegate; and R. L. Palenske, Censor.

In other Society business, Dr. Surat Sinasa and Dr. Somsak Lopansri were accepted as members by a unanimous vote of the Board of Censors.

From the Medical Schools



UNIVERSITY OF MISSOURI-KANSAS CITY

Richardson K. Noback, M.D., Dean of the School of Medicine, has announced the addition of four new faculty members during the last month.

Dr. Thomas Mahvi has joined the faculty as an associate professor and also will act as chief of clinical microbiology in the hospital laboratory. Dr. Mahvi is from the Department of Microbiology of the Medical University of South Carolina, where he held the rank of associate professor.

Dr. Marvin Rogolsky is an associate professor of microbiology. He formerly was an associate professor of microbiology at the University of Utah College of Medicine.

Dr. Bernard Lubin has joined the faculty as professor and chairman of the Psychology Department. He is from the University of Houston where he was director of the Clinical Psychology Program in the Department of Psychology.

Mr. Gary Byrd has joined the UMKC as chief medical librarian and assistant professor. He formerly was Assistant Director of the Health Science Library at the University of South Dakota.

Twelve students and twelve faculty members travelled in Southwest Missouri in October to learn more about health care in the area, to better understand the importance of the roles which students are needed to fill and to bring students, communities, needs and opportunities together. Many physicians and community leaders made the tour possible.

UNIVERSITY OF MISSOURI-COLUMBIA

The University of Missouri has been chosen by the Department of Health, Education and Welfare (HEW) to receive \$893,223 a year for five years for a health care technology center.

Dr. Donald A. B. Lindberg, University director of the Information Science Group, is project director.

The University is the only school chosen for the grant. Harvard University, Stanford University and Mount Sinai Medical School in New York are among schools that applied.

The Center will study the impact technology has on health care and will evaluate the effectiveness of information processes and computer technology,

according to Dr. Lindberg. He said that "a great deal of this type of research already is being done here. The change is that we'll be looking at national problems as well as regional and local ones."

The research will involve the School of Medicine, the School of Journalism, the College of Arts and Science, the School of Industrial and Bio-Engineering, the computer science department, the rural sociology department and University Extension Division.

A two-year contract has been awarded the School of Medicine to establish a Center for Health Planning to serve Missouri, Iowa, Kansas and Nebraska.

The Center will provide training and consultation services for health planning activities in the four states. The two-year budget will be \$627,927. The Center will operate as a part of the University's section of graduate studies in Health Services Management.

The Center will employ three full-time professionals and five support personnel. In addition, a consultant panel has been assembled and consists of more than 100 health-related professionals throughout the region and nation.

Dr. Stuart A. Wesbury, Jr., section director, said that the Center will be funded by the Health Resources Administration of the Department of Health, Education and Welfare.

SAINT LOUIS UNIVERSITY

Five members of the Department of Biochemistry of the School of Medicine presented papers at the Tenth International Congress of Biochemistry in Hamburg, Germany last July.

Robert E. Olson, M.D., Alice A. Doisy professor and chairman of the Department of Biochemistry, delivered a symposium paper entitled, "The Role of Vitamin K in the Carboxylation of Preprothrombin."

Ronald S. Cockrell, Ph.D., associate professor; *Karl M. Dus*, Ph.D., associate professor; *Carlos B. Hirschberg*, Ph.D., assistant professor; and *Anthony Martonosi*, M.D., professor, presented short papers in the poster sessions.

Five thousand biochemists from all over the world attended the meeting. The Congress is held every three years.

Gastone G. Celesia, M.D., has been appointed a professor of Neurology. *George E. Thoma, M.D.*, vice-president for the Medical Center, made the announcement.

Prior to his appointment here, Dr. Celesia was a professor of Neurology at the University of Wisconsin (Madison) Center of Health Sciences.

A native of Genoa, Italy, Dr. Celesia received his B.S. degree from the Scientific Lyceum in Genoa in 1953 and his M.D. from the University of Genoa Medical School in 1959. He received his M.S. at McGill University in Montreal, Canada, in 1965.

He took his internship at Madison General Hospital in Madison, Wis. in 1960 and his residency at the Montreal Neurological Institute from 1962 to 1965.

Dr. Celesia has been the recipient of many honors, including the Citation of Special Merit from the Wisconsin State Medical Society in 1970, listing in *American Men and Women of Science*, and listing in *Who's Who in the Midwest*.

WASHINGTON UNIVERSITY

Dr. Rupert E. Billingham, professor and head of the Department of Cell Biology at Texas Southwestern Medical School in Dallas delivered the 24th Robert J. Terry Lecture on October 28. His subject was "Transplantation Biology and the Maternal-Fetal Relationship."

The Terry Lecture was established in 1938 by alumni and friends of the Medical School to honor the late Robert J. Terry, who was professor and head of the Department of Anatomy from 1900 to 1941.

In Memoriam

Roland A. Winterer, M.D., 10501 Trailridge Dr., St. Louis 63128, a graduate of St. Louis University, 1931; member St. Louis Medical Society; age 73; died Oct. 12, 1976.

Daniel F. Hogan, M.D., 9F Resosaca Apt., Fort Brown, Brownsville, Tex. 78250, a graduate of St. Louis University, 1926; member Jackson County Medical Society; age, 74; died Oct. 15, 1976.

BRIEF SUMMARY OF PRESCRIBING INFORMATION

ANTIMINTH® (pyrantel pamoate) **ORAL SUSPENSION**

Actions. Antiminth (pyrantel pamoate) has demonstrated anthelmintic activity against *Enterobius vermicularis* (pinworm) and *Ascaris lumbricoides* (roundworm). The anthelmintic action is probably due to the neuromuscular blocking property of the drug.

Antiminth is partially absorbed after an oral dose. Plasma levels of unchanged drug are low. Peak levels (0.05-0.13 µg/ml) are reached in 1-3 hours. Quantities greater than 50% of administered drug are excreted in feces as the unchanged form, whereas only 7% or less of the dose is found in urine as the unchanged form of the drug and its metabolites.

Indications. For the treatment of ascariasis (roundworm infection) and enterobiasis (pinworm infection).

Warnings. *Usage in Pregnancy:* Reproduction studies have been performed in animals and there was no evidence of propensity for harm to the fetus. The relevance to the human is not known.

There is no experience in pregnant women who have received this drug.

The drug has not been extensively studied in children under two years; therefore, in the treatment of children under the age of two years, the relative benefit/risk should be considered.

Precautions. Minor transient elevations of SGOT have occurred in a small percentage of patients. Therefore, this drug should be used with caution in patients with preexisting liver dysfunction.

Adverse Reactions. The most frequently encountered adverse reactions are related to the gastrointestinal system.

Gastrointestinal and hepatic reactions: anorexia, nausea, vomiting, gastralgia, abdominal cramps, diarrhea and tenesmus, transient elevation of SGOT.

CNS reactions: headache, dizziness, drowsiness, and insomnia. Skin reactions: rashes.

Dosage and Administration. *Children and Adults:* Antiminth Oral Suspension (50 mg of pyrantel base/ml) should be administered in a single dose of 11 mg of pyrantel base per kg of body weight (or 5 mg/lb.); maximum total dose 1 gram. This corresponds to a simplified dosage regimen of 1 ml of Antiminth per 10 lb. of body weight. (One teaspoonful=5 ml.)

Antiminth (pyrantel pamoate) Oral Suspension may be administered without regard to ingestion of food or time of day, and purging is not necessary prior to, during, or after therapy. It may be taken with milk or fruit juices.

How Supplied. Antiminth Oral Suspension is available as a pleasant tasting caramel-flavored suspension which contains the equivalent of 50 mg pyrantel base per ml, supplied in 60 ml bottles and Unitcups™ of 5 ml in packages of 12.

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The only single-dose anthelmintic effective against pinworms and roundworms.

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■ **Economical**—a single prescription will treat the whole family.

■ **Highly acceptable**—pleasant-tasting caramel flavor.

■ **Convenient**—just 1 tsp. for every 50 lbs. of body weight. May be taken without regard to meals or time of day.

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Antiminth[®] ORAL
(pyrantel pamoate) SUSPENSION
equivalent to 50mg pyrantel/ml



RECENT CHANGES

federal register

**Providing
Drug Information
to Physicians**

**Informational
Bulletin #433-76**

**National
Health
Insurance**

special report
**Malpractice
insurance:**

**drug
bulletin**

**Health care doesn't
need more red tape**

**Drug firms challenge
'MAC' rules**

**Drug
Substitution**

**The Consensus: Disseminator
of Health Progress**
RESEARCH

Mallin-Miller Mailgram **2**

THERE ARE A LOT OF PEOPLE GETTING BETWEEN YOU AND YOUR PATIENT.

Medicine today is in the spotlight, subjected to all kinds of scrutiny. Your control over patient therapy is being monitored, judged and occasionally abrogated, sometimes by unknown third parties.

The worry is that in the wake of this focus, the relationship between you and your patient will be weakened, without offsetting benefits. Consider three examples:

Drug substitution In most states, pharmacy laws, regulations or professional custom stipulate that your non-generic prescriptions be filled with the precise products you prescribe. But in the last five years, a dozen or more State laws have been changed, permitting the pharmacist in most cases to select a product of the same generic drug to fill any prescription.

Ironically, this dilution of physician control has taken place against a background of growing evidence that purportedly equivalent drug products may be inequivalent, since neither present drug standards nor their enforcement are optimal. In fact, the FDA itself says it has not enforced the same standards for hundreds of "follow-on" products that it had applied to the original NDA approvals. Thus physician control over patient therapy is being eroded with a risk that patients may be exposed to drugs of uncertain quality.

The major advertised claim for substitution is reduced prescription prices for consumers. Yet no documentation of any significant savings has been produced.

MAC Maximum Allowable Cost, MAC for short, is a Federal regulation designed to cut the Government's drug bill by setting price ceilings for drugs dispensed to Medicare and Medicaid patients. Unless the prescriber certifies on the prescription that a particular product is medically necessary, the Government intends to pay only for the cost of the lowest-priced, purportedly-equivalent,

generally-available product. The effect of the program may be that elderly and indigent patients will be restricted to products which someone in Washington believes are priced right. Practicing doctors will have little to say about administration of the program, since Government will have absolute authority to make its choices stick.

The drug lag The future of drug and device research depends upon a scientific and regulatory environment that encourages therapeutic innovations. The American pharmaceutical industry annually is spending more than \$1 billion of its own funds and evaluating more than 1,200 investigational compounds in clinical research. Disease targets include cancer, atherosclerosis, viruses and central nervous system disorders, among others. But there is a major barrier to the flow of new drugs to your patients: The cost of the research is more than ten times what it was, per product, in 1962; and whereas governmental clearance of new drug applications took six months then, it commonly consumes two years now.

The FDA needs adequate time, of course, to consider data. But it is equally clear that the present approval process contributes to needless delay of needed therapy. That's why the increased efficiency of the drug approval process is vital to all our futures.

If these issues concern you, we suggest that you make your voice heard—among your colleagues and your representatives in State legislatures and in Washington.

It could make a difference in your practice tomorrow.



Pharmaceutical Manufacturers Association
1155 Fifteenth Street, N.W., Washington, D.C. 20005

Council Reports

(Continued from page 604)

Mr. Ellison reported that at the September 18 meeting of the Commission, Dr. Ladyman reported that acknowledgement had been received from Dr. Theodore Cooper of HEW of invitation for him to be a featured speaker for our 119th Annual Session. Dr. Grebel presented a resolution from the Council of the Missouri Society of Internal Medicine which resolved that the MSIM no longer wishes to participate in the planning, but will serve as a resource for and consultant for scientific medical education programs at the Annual Meeting of the MSMA. Dr. Ladyman commented that involvement of all the specialty organizations in the scientific sessions of the Annual Meeting has resulted in very good programs.

A discussion was held on the problems that face Missouri ophthalmologists which have to do with the impact of the effort on the part of optometrists to enter the active treatment field of ophthalmology. A resolution was presented which stated "that the Interspecialty Commission recommends that the MSMA vigorously supports the ophthalmologists of Missouri in refuting any legislative attempt to expand the activities beyond the present criteria for the practice of optometry." This resolution was seconded and passed.

The Commission held a discussion conforming the multiple specialty problems similar to that of ophthalmology in which health care assistants are demanding and being sponsored for active practice of medicine without proper medical education. One of the Commission members reported that Washington University, Lindenwood College and City Hospital have joined efforts in producing a two-year liberal arts course, followed by two years of training at City Hospital and Washington University which will result in a Bachelor of Medicine Degree. He stated that this is a definite threat to the present high quality of professional medical practice.

Mr. Cooper brought the Commission up-to-date on the political activities in the State Legislature and gave a brief analysis of the bills to be introduced in the next session.

A motion was made, seconded and carried to accept the two Interspecialty Commission reports for information only. The motion carried.

A brief discussion followed regarding the above reports. It was pointed out that there are a lot of things involved in the Society of Internal Medicine not wishing to sponsor a scientific session during the MSMA Annual Session. This includes sparse attendance at some of the previous sessions, which resulted in embarrassment for some of the speakers. It was suggested that they might sponsor only one program instead of the usual three or four. The suggestion was made that, possibly, it is time for a review of the over-all quality of the scientific sessions to try to find out where we have been wrong and to improve it.

After further discussion, a motion was made, seconded and carried that the Commission on Interspecialty Medicine develop a strong, responsive program on Internal Medicine for the upcoming Annual Session.

REPORTS OF THE DEANS

Dr. Noback reported that the University of Missouri-Kansas City School of Medicine has been placed on probation by the Liaison Committee on Education. He indicated that he felt this was due to a misunderstanding and the judgment by the Liaison Committee has been appealed.

Dr. Noback reiterated Dr. German's remarks regarding the faculty and students from UMKC visiting Southwest Missouri during October. This is being done to enhance the student's knowledge of medical care outside the large, metropolitan setting.

Present plans are to move into the new Truman Medical Center on Dec. 4, 1976. The number of residents in Internal

Medicine has approximately doubled since the onset of the residency program in Internal Medicine.

Dr. William Allen, in the absence of Dr. Lobeck, reported for the University of Missouri-Columbia.

At the last Council Meeting, the Council approved the mailing of a letter and questionnaire by the University to the neurosurgeons and orthopedic surgeons in Missouri concerning the Howard A. Rusk Rehabilitation Center. A favorable response has been received from this mailing and many physicians indicated they would utilize the services of the Center.

Money has been appropriated for a new School of Nursing and bids are now out for its construction.

Dr. Allen outlined for the Council's information the admissions process at the University of Missouri Medical School and gave a brief report on the numbers of new students, their geographical distribution, grade point average, etc.

Dr. Thoma expressed Dr. Challoner's apologies for not being present at the meeting. He gave the Council a summary on the numbers, grade point average, etc. of the new students admitted in September. Dr. Thoma reported that the students at St. Louis University had ranked in the 94th percentile on their national boards and the school is fourth or fifth nationally.

REPORT OF AMA DELEGATES

Dr. Peterson stated that MSMA members should be extremely proud of the fact that Dr. Hubert Ritter had been elected to the AMA Board of Trustees and that Dr. Joseph White had been reelected to the Council on Medical Education and is now Chairman of that Council. Dr. Richard Palmer was installed as President of the AMA and Dr. John Budd as President-Elect.

Dr. Peterson gave a brief report on the various actions taken at the AMA Annual Session in June and stated that these have been printed in various publications. The House called on the Board of Trustees to take appropriate action regarding the Talmadge Amendments. The House adopted an Association policy deploring all acts of fraud including those acts as recently reported in the Medicaid and Medicare Programs.

Dr. Peterson stated that he looks forward to Missouri being well represented at the AMA level in the future.

Dr. Martin thanked Dr. Peterson for his AMA report and called on Dr. Ritter for any additional comments regarding the AMA.

Dr. Ritter thanked Dr. Peterson for his excellent nominating speech and thanked all Delegates and Alternates for the important part they played in his being elected to the AMA Board. He reported that he had attended the three Board Meetings since his election and that he is quite pleased with the fact that Dr. Froelich and Dr. Slickman are on Reference Committees. He reported that the AMA has 147,000-plus dues paying members and another 56,000 belong to state and local societies, but do not belong to AMA. The AMA seems to be in good financial condition at the present time. Dr. Ritter gave the Council a brief report on the various topics covered at the September AMA Board meeting, including finances.

The AMA is in the process of establishing an Ad Hoc Committee on Services to Young Physicians composed of 11 young physicians. This Committee will study various things, such as what young physicians need and require. The MSMA has submitted the name of Dr. Daniel Fraser, St. Louis, to be a member of this Committee. The AMA has developed a proposal for direct billing for AMA dues.

A motion was made, seconded and carried that the MSMA Delegates to the AMA be instructed to support present state medical associations billing procedures for AMA dues rather than direct billing from the AMA.

ELECTION OF AMA DELEGATE

Dr. Martin indicated that since Dr. Ritter's election to the AMA Board, he has resigned as an AMA Delegate from Missouri and a new Delegate must be elected. Nominations were received from the floor for Dr. Melvin Kasten and Dr. Lawrence O'Neal to replace Dr. Ritter. On written ballot, Dr. Lawrence W. O'Neal was elected to fill the unexpired term of Dr. Ritter as an AMA Delegate. Dr. Judd was nominated and elected to become Alternate Delegate to replace Dr. O'Neal.

ARRANGEMENTS COMMITTEE

The Chairman named the following Arrangements Committee members for the 119th Annual Session: Dr. Judd, Chairman; Drs. Hetlage and Hansbrough.

Dr. Hetlage moved that the Council hold a meeting the morning of the Interim Session and that, possibly, this should be limited to matters being discussed at the Interim Session. The motion was seconded and carried.

NEXT COUNCIL MEETING

The next Council Meeting following the Interim Session will be held on December 11 with a Budget Committee Meeting and Executive Session being held on December 10. The meeting will be held at the Hilton Inn in Columbia.

SPEAKER, MSMA HOUSE

Dr. James Brown, Speaker, MSMA House of Delegates, indicated to the Council that he would be unable to attend the Interim Session at Tan-Tar-A, but he stated that Dr. Burford, Vice-Speaker, will be on hand and will do a good job.

AMA REPORT

Miss Carla Neuschel of the Department of Federation Communications made a few brief remarks regarding her position with the AMA. She is the contact person in the AMA for the state of Missouri, along with several other states. She extended her offer for assistance where possible and to let her know when she can be of help to the MSMA. She reported that the National Leadership Conference will be held on January 21-23 in Chicago and a good meeting is being planned. There will be a series of special training seminars covering various subjects such as practice management, AMPAC, etc. There will be no Public Affairs Workshop this year.

Miss Neuschel reiterated to please let her know if there is anything she can do to assist the Association in any way.

LEGISLATIVE REPORT

Dr. John Matthews, Chairman of the Legislative Committee, gave a brief rundown on proposed legislation in the 1977 General Assembly:

Certificate of Need—The Legislative Committee is trying to make several changes in this bill and will report back at the December meeting.

Definition of Death—Presently, the Senate Select Committee is studying three definitions of death bills and will make a definite decision on which bill to sponsor by November 1.

Confidentiality of Medical Records—The Legislative Committee recommended that the AMA Model Bill on Confidentiality be introduced.

Informed Consent—It was suggested that guidelines on informed consent be drawn up and no formal legislation be prepared.

Malpractice Suits—The MSMA Ad Hoc Committee chaired by Dr. George Hawkins, will present a bill and resolution at the Interim Session of the House of Delegates.

Health Insurance Coverage for Psychiatric Illness—Most of the large carriers are now including psychiatric coverage and it is believed that a bill will be introduced in this Session on this subject that MSMA can support.

Physician Assistants—The content of HB 1054 from the 1976 General Assembly will undoubtedly be introduced during the upcoming General Assembly.

National Health Manpower Legislation—This legislation is presently in Conference Committee.

Board of Healing Arts—Support the State Board of Healing Arts in their legislative efforts.

Model Fireworks Bill—We have been on record as supporting this type of legislation for many years.

Dr. Matthews reported that, perhaps, a resolution will be introduced at the MSMA Interim Session calling for legislation to allow coroners and medical examiners to remove pituitary glands in all coroners' autopsies.

On a motion, duly seconded, the report of the Legislative Committee was approved. The motion carried.

EXECUTIVE SESSION

The Council met in Executive Session on Friday evening, September 24, with discussion and actions taken as follows:

Mr. McIntyre presented the new Pension Plan. The plan had been revised to conform to new federal laws. The Council by unanimous vote passed a resolution accepting the new Pension Plan as presented.

The Council had been notified by Mr. McIntyre, our Executive Secretary, that he desires to retire from that position as of Jan. 1, 1977. With regret and heartfelt thanks for years of loyal service to the MSMA by Mr. McIntyre, we accepted his request. Therefore, we (the Council) appointed Mr. Royal O. Cooper to assume the duties of Executive Secretary of MSMA on Jan. 1, 1977. Mr. Cooper was asked to appear and he stated he would accept the position.

It was the feeling of the Council that in order to implement Resolution #9 passed by the House of Delegates at the Annual Meeting in April, 1976, in Kansas City, that a way must be found to finance this. Since this subject was not on the agenda for the Council meeting on Sept. 25, 1976, a motion was made and passed that a resolution be presented to the Council on Sept. 25, 1976. This resolution and possible ways to implement Resolution #9 will be in the Council Meeting Minutes.

The Council then voted to send a letter to Dr. James Sammons of the AMA expressing our concern as to why communications between the AMA office and our MSMA are so poor and that we are still of the opinion that better field service from the AMA would alleviate many of our problems regarding the AMA.

Dr. McAlhany presented to the Council a request from Mr. Neil Wortley of Springfield, Mo., president-elect of the Missouri Hospital Association, recommending that the MSMA and MHA consider the possibility of promoting a consumer educational program regarding physicians and hospital services, costs, etc. Mr. Wortley stated he had made some contact with the Kellogg Foundation and seems to believe that funds could be secured from them for projects of this kind and, therefore, minimal funds, if any, would be needed directly from the two associations. This educational program would probably center around radio and TV shorts.

Since Dr. McAlhany felt that he would be able to review the productions, the Council voted to have the MSMA join the MHA in this project.

New Members

Richard Ashby, M.D., 621 S. New Ballas Rd., St. Louis 63141, has become a member of St. Louis Medical Society. Dr. Ashby is a native of Texas, received his preliminary education at Southern Methodist University and his M.D. degree at the University of Texas in 1954. He specializes in neurosurgery.

A. I. Brimmo, M.D., 6000 W. Florissant, St. Louis 63136, has become a member of St. Louis Medical Society. Dr. Brimmo is a native of Nigeria, received his M.D. degree at the University of Ibadan in 1968. He specializes in general surgery.

Ronald A. Browning, M.D., 3103 McClelland Blvd., Joplin 64801, has become a member of Jasper County Medical Society. Dr. Browning is a native of Poplar Bluff, received his preliminary education at the University of Missouri and his M.D. degree at the University of Missouri in 1973. He specializes in internal medicine.

David Crafts, M.D., 1325 S. Grand, St. Louis 63103, has become a member of St. Louis Medical Society. Dr. Crafts is a native of Ohio, received his preliminary education at Yale College and his M.D. degree at Western Reserve University in 1967. He specializes in surgery.

Plaridel C. Deza, M.D., 1420 Grattan, St. Louis 63104, has become a member of St. Louis Medical Society. Dr. Deza is a native of the Philippines, received his preliminary education at the University of St. Augustine and his M.D. degree at the University of Santo Tomas in 1956. He specializes in psychiatry.

Stanley J. Dombek, M.D., 2929 Baltimore, Kansas City 64108, has become a member of Jackson County Medical Society. Dr. Dombek is a native of Oklahoma, received his preliminary education at Tulsa University and his M.D. degree at Oklahoma University in 1967. He specializes in general, thoracic and cardiovascular surgery.

Farida Farzana, M.D., 5400 Arsenal, St. Louis 63139, has become a member of St. Louis Medical Society. Dr. Farzana is a native of India, received her preliminary education at Osmania University and her M.D. degree at the University of India in 1964. She specializes in psychiatry.

Michael H. Glines, M.D., 12660 Lamplighter Square, St. Louis 63128 has become a member of

St. Louis Medical Society. Dr. Glines is a native of New York, received his preliminary education at the University of Rochester and his M.D. degree at St. Louis University in 1973. He specializes in pediatrics.

Crisanto Gaulberto, M.D., 2601 N. Whittier, St. Louis 63113 has become a member of St. Louis Medical Society. Dr. Gaulberto is a native of the Philippines, received his preliminary education at the University of the East, Manila and his M.D. degree at UE-RM Memorial Medical Center in 1971. He specializes in general practice.

William G. Hart, M.D., 1325 S. Grand, St. Louis 63104 has become a member of St. Louis Medical Society. Dr. Hart is a native of Rhode Island, received his preliminary education at St. Louis University and his M.D. degree at St. Louis University in 1974. He specializes in otolaryngology.

David G. Hof, M.D., 2929 Baltimore, Kansas City 64108 has become a member of Jackson County Medical Society. Dr. Hof is a native of Kansas City, received his preliminary education at the University of Kansas and his M.D. degree at the University of Missouri in 1973. He specializes in internal medicine.

Shi H. Huang, M.D., 660 S. Euclid, St. Louis 63110 has become a member of St. Louis Medical Society. Dr. Huang is a native of Formosa, received his preliminary education at National Taiwan University and his M.D. degree at National Taiwan University in 1951. He specializes in neurological surgery.

Cheryl Leone, M.D., 615 S. New Ballas Rd., St. Louis 63141 has become a member of St. Louis Medical Society. Dr. Leone is a native of Washington, received her preliminary education at Tulane University and her M.D. degree at Tulane University in 1969. She specializes in pathology.

Sien H. Lie, M.D., 9th & Euclid, Kansas City 64124 has become a member of Jackson County Medical Society. Dr. Lie is a native of India. He received his M.D. degree at Airlangga University in 1963. He specializes in obstetrics and gynecology.

Nancy J. Litton, M.D., 24th & Cherry, Kansas City 64106 has become a member of Jackson County Medical Society. Dr. Litton is a native of Kansas, received her preliminary education at the University of Kansas and her M.D. degree at the University of Kansas in 1969. She specializes in pathology.

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Narrowing down pneumonias

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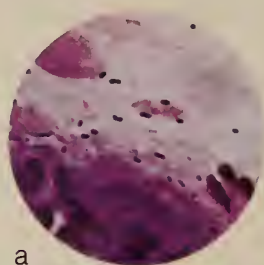
Bacterial or nonbacterial?

In the early stages of mild to moderate pneumonia, it is often difficult to reach an accurate bacteriologic diagnosis. A tentative differentiation may be made on history-taking, physical examination, CBC with differential analysis, and microscopic study of the sputum smear. Specimens should be obtained for culture and sensitivity testing, but when a bacterial pneumonia is diagnosed, therapy is often instituted before the etiological agent is positively identified.

Bacterial pneumonias may have a sudden onset with a shaking chill, rapid development of fever, pleuritic pain, and cough productive of rust-colored sputum. The Gram-stained sputum smear generally shows polymorphonuclear neutrophils as well as a predominance of the causative organisms. These are likely to be *Streptococcus pneumoniae*, still by far the most frequently encountered agent in bacterial pneumonia.¹ The CBC reveals marked leukocytosis with a shift to the left.

In **nonbacterial pneumonias**—mycoplasmal or viral—classical symptoms tend to develop more slowly, with myalgia, lassitude, and headache predominating. Sputum production is usually scanty, and the sputum smear is relatively uninformative, showing gram-positive cocci and other organisms which are part of the normal pharyngeal flora. The leukocyte count is normal or slightly elevated.

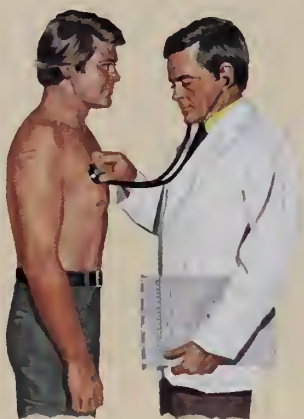
Direct Gram-stained sputum smears. (a) Pneumococcal pneumonia—note abundant polymorphonuclear leukocytes, as well as gram-positive diplococci. (b) Nonspecific—consistent with viral or mycoplasmal pneumonia. Note large mononuclear cell, as well as a few polymorphs and mixed bacterial flora (pharyngeal contaminants).



a



b

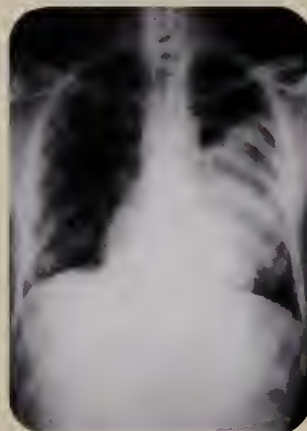


Mycoplasmal or viral?

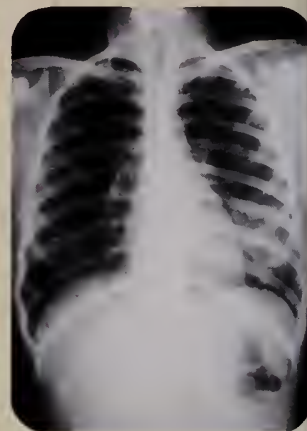
Differentiation between mycoplasmal and viral pneumonias may be impossible in the acute stage.²

Serologic testing and culture methods for *Mycoplasma pneumoniae* are complex and time-consuming, taking as long as two weeks after obtaining samples. The sensitivity and specificity of the test for cold agglutinins have been questioned. The complement-fixing antibody test may reflect previous infection. Furthermore, facilities for culturing *M. pneumoniae* are not widely available.³

If treatment is to be initiated, therefore, it may be necessary to start on the basis of a *presumptive* diagnosis of mycoplasmal pneumonia.¹⁻³ In reaching such a diagnosis, the physician relies on clinical judgment, considering such factors as the age of the patient and the history of exposure. For example, *Mycoplasma pneumoniae* is considered the most common cause of pneumonia among ambulatory patients aged 20 to 35.¹

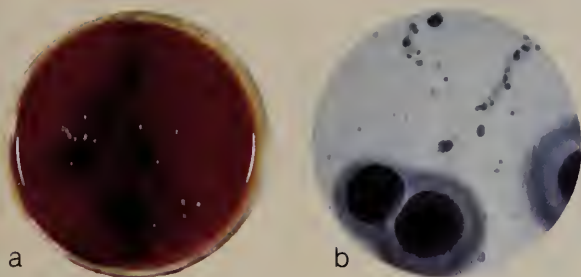


a



b

Chest x-rays of patients with (a) pneumococcal pneumonia—classically heavy, extensive infiltration of left lung; (b) mycoplasmal pneumonia—mild infiltrate confined to left lower lobe. Roentgenography usually does not help in differential diagnosis, since both types of pneumonias may present with a wide spectrum of x-ray as well as clinical findings.



(a) Distinct mucoid colonies of type 3 pneumococci (*Streptococcus pneumoniae*) on sheep blood agar showing greenish discoloration (alpha-hemolysis) of medium. (b) Typical "fried-egg" colonies of *Mycoplasma pneumoniae* consisting of dense central core with lighter periphery. Cultural and serologic methods for detecting *M. pneumoniae* are complex, time-consuming, and not widely available.

Expectant therapy

In the patient with a presumptive diagnosis of mycoplasmal pneumonia or bacterial pneumonia, it may be desirable to initiate antibiotic therapy before culture and sensitivity results are available.

A course of erythromycin or tetracycline is considered effective in the treatment of mycoplasmal pneumonia to help speed the clearing of infiltrate and shorten the duration of symptoms.^{1,3} In pneumococcal pneumonia, erythromycin is an effective alternative to penicillin, the drug of choice. A recent report, based on data from 200 hospitals of 100 beds or more, found 98% of *S. pneumoniae* sensitive *in vitro* to erythromycin.⁴

Among these therapeutic agents, only erythromycin provides effective coverage of both *Mycoplasma pneumoniae* and *S. pneumoniae*. The penicillins are not effective against *Mycoplasma*, and *S. pneumoniae* has shown a relatively high incidence of resistance to tetracycline.

When erythromycin is selected for therapy, E-Mycin (erythromycin enteric-coated tablets, Upjohn) is a good choice. E-Mycin is administered and absorbed as active erythromycin base, and may be taken q.i.d., q 6h, or b.i.d., immediately after meals or between meals. Thus, patients can use mealtimes to help them remember their medication. The enteric coating on E-Mycin tablets helps ensure efficient absorption in the intestinal tract, and bioavailability studies show that E-Mycin can be expected to produce predictable, acceptable blood levels. The low cost of E-Mycin helps assure economical therapy.

E-Mycin rarely causes serious side effects and is not associated with liver toxicity.* The most frequent side effects are upper gastrointestinal, such as abdominal cramping and discomfort, and are dose-related. Nausea, vomiting, and diarrhea occur infrequently with usual oral doses. Serious allergic reactions, including anaphylaxis, have rarely been reported.

*Use cautiously in patients with severe liver impairment

REFERENCES: 1. Chusid EL, Dalrymple W, Holloway WJ, et al: Managing the infectious pneumonias. *Patent Care* 9:122-167, 1975. 2. The occasional might of mycoplasma. *Emergency Med* 7:82, 85, 1975. 3. Stevens DA: Viral and Mycoplasma pneumonias. *Postgrad Med* 55:81-86, 1974. 4. Data source: PMR Bacteriologic Report, Winter Series

Summary

Because pneumonias may be difficult to differentiate at the outset, treatment is often initiated before a causal diagnosis is made. However, readily available diagnostic criteria occasionally allow early differentiation between bacterial and nonbacterial pneumonias. When the diagnosis appears to be nonbacterial pneumonia, further differentiation between mycoplasmal pneumonia and viral pneumonia is more complex and time-consuming. Therefore, therapy is often initiated on the basis of a *presumptive* diagnosis of mycoplasmal pneumonia.

Erythromycin is an effective antibiotic against *Mycoplasma pneumoniae*, *Streptococcus pneumoniae*,[†] and *Streptococcus pyogenes*.[†] E-Mycin (erythromycin enteric-coated tablets, Upjohn) is administered and well absorbed as the active base, may be taken immediately after meals or between meals, and is essentially nontoxic.

[†]Although penicillin remains the drug of choice against these organisms, erythromycin is an effective alternative.



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wide-ranging usefulness in pneumonia*

*Mild to moderately severe, due to susceptible organisms

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1975-1976. Data are a compilation of laboratory reports submitted during December 1975 and January and February 1976 by 200 acute care hospitals of 100 beds or more

Please turn page for brief summary of prescribing information.

Wide-ranging usefulness in pneumonia*

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Indications: *Streptococcus pyogenes* (group A beta-hemolytic streptococci): Upper and lower respiratory tract, skin, and soft-tissue infections of mild to moderate severity. Parenteral benzathine penicillin G is considered by the American Heart Association to be the drug of choice in the treatment and prevention of streptococcal pharyngitis and in long-term prophylaxis of rheumatic fever. When oral medication is necessary (because the parenteral route is contraindicated) or if there is known allergy to penicillin, the following recommendations made by the American Heart Association apply: 1) Oral penicillin G or V (where no allergy exists)—This is the drug of choice. Give for a minimum of 10 days; 2) Erythromycin—Give for a minimum of 10 days. A few strains of streptococci resistant to erythromycin have been reported.

Alpha-hemolytic streptococci (viridans group): Short-term prophylaxis against bacterial endocarditis prior to dental or other operative procedures in patients with a history of rheumatic fever or congenital heart disease who are hypersensitive to penicillin. (Erythromycin is not suitable prior to genitourinary surgery where the organisms likely to lead to bacteremia are gram-negative bacilli or the enterococcus group of streptococci.) *Staphylococcus aureus*: Acute infections of skin and soft tissue of mild to moderate severity. Resistance may develop during treatment.

Diplococcus pneumoniae: Upper respiratory tract infections (eg, otitis media, pharyngitis) and lower respiratory tract infections (eg, pneumonia) of mild to moderate degree.

Mycoplasma pneumoniae (Eaton agent, PPLO): In the treatment of primary atypical pneumonia, when due to this organism.

Treponema pallidum: Infections due to this organism.

Corynebacterium diphtheriae and *Corynebacterium minutissimum*: As an adjunct to antitoxin, to prevent establishment of

carriers, and to eradicate the organism in carriers. In the treatment of erythrasma.

Entamoeba histolytica: In the treatment of intestinal amebiasis only. Extraenteric amebiasis requires treatment with other agents. *Listeria monocytogenes*: Infections due to this organism.

Contraindication: Contraindicated in patients with known hypersensitivity to erythromycin.

Warning: Safety for use in pregnancy has not been established.

Precautions: Erythromycin is principally excreted by the liver. Caution should be exercised in administering the antibiotic to patients with impaired hepatic function. Surgical procedures should be performed when indicated.

Adverse reactions: The most frequent side effects of erythromycin preparations are gastrointestinal, such as abdominal cramping and discomfort, and are dose-related. Nausea, vomiting, and diarrhea occur infrequently with usual oral doses. During prolonged or repeated therapy, there is a possibility of overgrowth of nonsusceptible bacteria or fungi. If such infections occur, the drug should be discontinued and appropriate therapy instituted. Mild allergic reactions such as urticaria and other skin rashes have occurred. Serious allergic reactions, including anaphylaxis, have been reported.

Treatment of overdosage: The drug is virtually nontoxic, though some individuals may exhibit gastric intolerance to even therapeutic amounts. Allergic reactions associated with acute overdosage should be handled in the usual manner—that is, by the administration of adrenalin, corticosteroids, and antihistamines as indicated and the prompt elimination of unabsorbed drug, in addition to all needed supportive measures.

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2. Date of filing: September 28, 1976.
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7. Owner (If owned by a corporation, its name and address must be stated and also immediately thereunder the names and addresses of stockholders owning or holding 1 percent or more of total amount of stock. If not owned by a corporation, the names and addresses of the individual owners must be given. If owned by a partnership or other unincorporated firm, its name and address, as well as that of each individual must be given.) Missouri State Medical Association, 113 Madison Street, Jefferson City, Missouri 65101.
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JEAN DUENSING, Managing Editor

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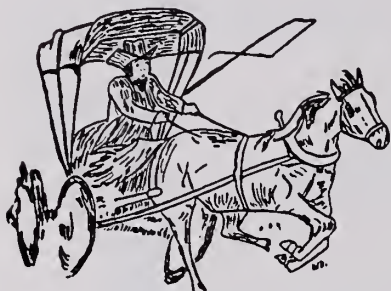
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Missouri Medicine in Review



FORTY YEARS AGO

A death rate of 124 per 1,000 population in St. Louis for the year ending on March 31, 1936 was reported recently by Dr. Joseph F. Bredeck, Health Commissioner. This was the lowest general rate ever reported in the city. The infant death rate of 51.2, the second lowest ever reported, was a decrease of 12% from the previous year.

Maternal deaths established a low record with four per 1,000 births, a reduction of 35% from the previous year. Other diseases which showed improved death rates were diphtheria, typhoid and tuberculosis. There was no case of smallpox reported during the year. Heart disease, pneumonia, cancer and diabetes remained among the important causes of death.

St. Louis shared with Los Angeles in the third highest death rate in cities of 500,000 population and over.

The Southeast Missouri Medical Association held its 60th annual meeting in Cape Girardeau on October 14-15 at the Marquette Hotel. Dr. S. E. Mitchell of Malden, President-Elect, delivered an address at the banquet. Officers presiding at the Cape Girardeau meeting were Drs. P. S. Tate, Farmington, President; Harry Barron, Fredericktown, Vice-President; Paul Baldwin, Kennett, Treasurer; R. C. Kitchell, Sullivan, Recording Secretary; and John D. VanCleve, Malden, Corresponding Secretary.

TWENTY-FIVE YEARS AGO

Alfred Goldman, M.D., St. Louis, will speak at the eighth annual meeting of the Southern Chapter of the American College of Chest Physicians in Dallas, Tex. on November 4. His subject will be "Strep-

tokinase-Streptodornase (SK-SK) in Inflammatory Diseases of the Chest."

At a recent meeting, the Boone County Medical Society went on record as "regretting that force of circumstances which made Dr. Trawick Stubbs feel that it was necessary for him to resign as Dean of the University of Missouri Medical School and regretting the loss to the community of the services of this energetic, loyal and honorable physician."

The annual Clay County Clinical Conference will take place in Excelsior Springs at the Elms Hotel on Thursday, November 1. This conference is a specific contribution to the Clay County Medical Society in the promotion of high quality postgraduate opportunities for physicians in Missouri, especially those in the western part of the state.

TEN YEARS AGO

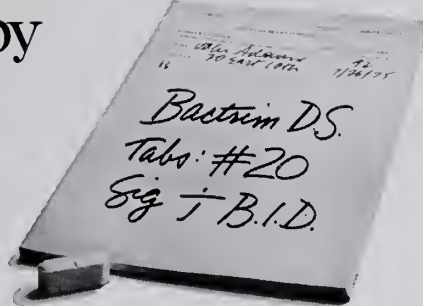
On Sept. 1, 1966, the Missouri State Medical Association officially opened its new office in the Medical Arts Building, 515 E. High, Jefferson City. Executive Secretary Raymond McIntyre reported that the move from St. Louis was accomplished with a minimum of difficulty and that routine Association work continued without interruption.

Remaining behind in St. Louis was Thomas R. O'Brien, former long-time Executive Secretary, who was forced to resign from that post last year because of health reasons. He will continue to serve the Association as an Executive Assistant and will continue to serve as Executive Director of Missouri Medical Service (St. Louis Blue Shield).

Thomas P. Fox joined the Association staff in 1961, bringing with him an extensive background in hospital administration. As another Executive Assistant, he is responsible for the affairs of the Missouri State Medical Foundation and for servicing several of the Association's committees which deal with paramedical matters.

Mrs. William I. (Bert) Thomas was the only one of four office "girls" to make the move to Jefferson City. Mrs. Thomas has been with the MSMA for 23 years and serves as Office Manager.

10-day Bactrim therapy outperforms 10-day ampicillin therapy.



In a multicenter, double-blind study of patients with chronic or frequently recurrent urinary tract infection, Bactrim 10-day therapy outperformed ampicillin 10-day therapy by 27.2%, when comparing patients who maintained clear cultures for eight weeks. Criterion for "clear culture" was 1000 or fewer organisms/ml of urine.

While adverse reactions noted in this study were mild (e.g., vomiting, nausea, rash), more serious reactions can occur with these drugs. See manufacturer's product information for complete listing. Maintain adequate fluid intake; perform frequent CBC's and urinalyses with microscopic examination.

Note: Bactrim tablets were used in these clinical trials. Bioequivalency studies show one Bactrim DS double strength tablet is equivalent to two Bactrim tablets.

For chronic or frequently recurrent cystitis and pyelonephritis due to susceptible organisms.

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Chronic urinary tract infections evidenced by persistent bacteriuria (symptomatic or asymptomatic), frequently recurrent infections (relapse or reinfection), or infections associated with urinary tract complications, such as obstruction. Primarily for cystitis, pyelonephritis or pyelitis due to susceptible strains of *E. coli*, *Klebsiella-Enterobacter*, *Proteus mirabilis*, *Proteus vulgaris* and *Proteus morganii*.

NOTE: The increasing frequency of resistant organisms limits the usefulness of antibacterials, especially in these urinary tract infections. The recommended quantitative disc susceptibility method (*Federal Register*, 37:20527-20529, 1972) may be used to estimate bacterial susceptibility to Bactrim. A laboratory report of "Susceptible to trimethoprim-sulfamethoxazole" indicates an infection likely to respond to Bactrim therapy. If infection is confined to the urine, "Intermediate susceptibility" also indicates a likely response. "Resistant" indicates that response is unlikely.

Contraindications: Hypersensitivity to trimethoprim or sulfonamides; pregnancy; nursing mothers.

Warnings: Deaths from hypersensitivity reactions, agranulocytosis, aplastic anemia and other blood dyscrasias have been associated with sulfonamides. Experience with trimethoprim is much more limited but occasional interference with hematopoiesis has been reported as well as an increased incidence of thrombopenia with purpura in elderly patients on certain diuretics, primarily thiazides. Sore throat, fever, pallor, purpura or jaundice may be early signs of serious blood disorders. Frequent CBC's are recommended; therapy should be discontinued if a significantly reduced count of any formed blood element is noted. **Data are insufficient to recommend use in infants and children under 12.**

Precautions: Use cautiously in patients with impaired renal or hepatic function, possible folate deficiency, severe allergy or bronchial asthma. In patients with glucose-6-phosphate dehydrogenase deficiency, hemolysis, frequently dose-related, may occur. During therapy, maintain adequate fluid intake and perform frequent urinalyses, with careful microscopic examination, and renal function tests, particularly where there is impaired renal function.

Adverse Reactions: All major reactions to sulfonamides and trimethoprim are included, even if not reported with Bactrim. *Blood dyscrasias:* Agranulocytosis, aplastic anemia, megaloblastic anemia, thrombopenia, leukopenia, hemolytic anemia, purpura, hypoprothrombinemia and methemoglobinemia. *Allergic reactions:* Erythema

BactrimTM DS

(160 mg trimethoprim and 800 mg sulfamethoxazole)

Double Strength tablets

Just 1 tablet B.I.D.

BactrimTM

(80 mg trimethoprim and 400 mg sulfamethoxazole)

2 tablets B.I.D.



multiforme, Stevens-Johnson syndrome, generalized skin eruptions, epidermal necrolysis, urticaria, serum sickness, pruritus, exfoliative dermatitis, anaphylactoid reactions, periorbital edema, conjunctival and scleral injection, photosensitization, arthralgia and allergic myocarditis. *Gastrointestinal reactions:* Glossitis, stomatitis, nausea, emesis, abdominal pains, hepatitis, diarrhea and pancreatitis. *CNS reactions:* Headache, peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo, insomnia, apathy, fatigue, muscle weakness and nervousness. *Miscellaneous reactions:* Drug fever, chills, toxic nephrosis with oliguria and anuria, periarteritis nodosa and L. E. phenomenon. Due to certain chemical similarities to some goitrogens, diuretics (acetazolamide, thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia in patients; cross-sensitivity with these agents may exist. In rats, long-term therapy with sulfonamides has produced thyroid malignancies.

Dosage: Not recommended for children under 12. Usual adult dosage: 1 DS tablet (double strength), 2 tablets (single strength) or 4 teasp. (20 ml) b.i.d. for 10-14 days.

For patients with renal impairment:

Creatinine Clearance (ml/min)	Recommended Dosage Regimen
Above 30	Usual standard regimen
15-30	1 DS tablet (double strength), 2 tablets (single strength) or 4 teasp. (20 ml) every 24 hours
Below 15	Use not recommended

Supplied: Double Strength (DS) tablets, each containing 160 mg trimethoprim and 800 mg sulfamethoxazole, bottles of 100; Tel-E-Dose® packages of 100. Tablets, each containing 80 mg trimethoprim and 400 mg sulfamethoxazole—bottles of 100 and 500; Tel-E-Dose® packages of 100; Prescription Paks of 40, available singly and in trays of 10.

Oral suspension, containing in each teaspoonful (5 ml) the equivalent of 40 mg trimethoprim and 200 mg sulfamethoxazole; fruit-flavored — bottles of 16 oz (1 pint).



Roche Laboratories
Division of Hoffmann-La Roche Inc.
Nutley, New Jersey 07110

In a multicenter study of patients with chronic or frequently recurrent urinary tract

College of Physicians
of Philadelphia, Library
19 South 22nd Street 19103
Philadelphia 3, Pa.

Bactrim was 27.2%* more effective than ampicillin in keeping patients infection-free for 8 weeks.†



Bactrim-70.5% of 78 patients infection-free at 8 weeks.



ampicillin-55.4% of 74 patients infection-free at 8 weeks.

*This percentage is arrived at by the statistical method of dividing the difference between Bactrim and ampicillin results (15.1%) by the percent of ampicillin results (55.4%).

†Data on file, Hoffmann-La Roche Inc., Nutley, New Jersey 07110

BactrimTM DS
(160 mg trimethoprim and 800 mg sulfamethoxazole)

Double Strength tablets
Just 1 tablet B.I.D.

Please see summary of product information on preceding page.

ROCHE

Note: Bactrim tablets were used in these clinical trials. Bioequivalency studies show one Bactrim DS double strength tablet is equivalent to two Bactrim tablets.

Missouri Medicine

JOURNAL OF THE MISSOURI STATE MEDICAL ASSOCIATION



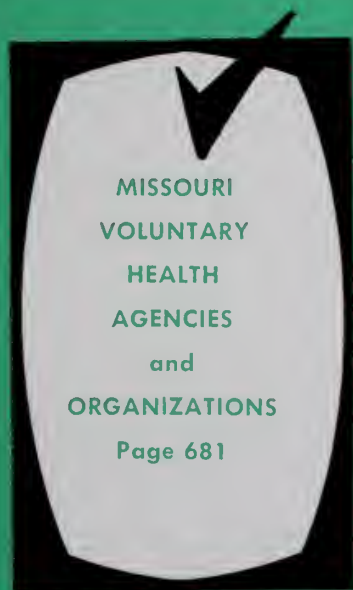
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JAN 10 1977

MSA

DECEMBER, 1976

VOLUME 73, NUMBER 12



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Ellis Fischel State Cancer Hospital
and Cancer Research Center
SPECIAL ISSUE

Both after



Predominant
psychoneurotic
anxiety

Associated
depressive
symptoms

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Tension and anxiety states; somatic complaints which are concomitants of emotional factors; psychoneurotic states manifested by tension, anxiety, apprehension, fatigue, depressive symptoms or agitation; symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in skeletal muscle spasm due to reflex spasm to local pathol-

ogy; spasticity caused by upper motor neuron disorders; athetosis; stiff-man syndrome; convulsive disorders (not for sole therapy).

Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma; may be used in patients with open angle glaucoma who are receiving appropriate therapy.

Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency

and/or severity of grand mal seizures require increased dosage of standard convulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms (similar to those with barbiturates and alcohol) have occurred following abrupt discontinuation (convulsions, tremor, abdominal and muscle cramps, vomiting and sweating). Use with caution in alcohol- and drug-addiction-prone individuals under care.

respond to one

According to her major symptoms, she is a psychoneurotic patient with severe anxiety. But according to the prescription she gives of her feelings, part of the problem may sound like depression. This is because her problem, though primarily one of excessive anxiety, is often accompanied by depressive symptomatology. Valium (diazepam) provides relief for both—as excessive anxiety is relieved, the depressive symptoms associated with it are also relieved.

There are other advantages in using Valium for the management of psychoneurotic anxiety with secondary depressive symptoms: the psychotherapeutic effect of Valium is pronounced and rapid. This means that improvement is usually apparent

in the patient within a few days rather than in a week or two, although it may take longer in some patients. In addition, Valium (diazepam) is generally well tolerated; as with most CNS-acting agents, caution patients against hazardous occupations requiring complete mental alertness.

Also, because the psychoneurotic patient's symptoms are often intensified at bedtime, Valium can offer an additional benefit. An *h.s.* dose added to the *b.i.d.* or *t.i.d.* treatment regimen can relieve the excessive anxiety and associated depressive symptoms and thus encourage a more restful night's sleep.



Valium[®] (diazepam) [ⓐ]

2-mg, 5-mg, 10-mg scored tablets

in psychoneurotic
anxiety states
with associated
depressive symptoms

surveillance because of their predisposition to habituation and dependence.

Usage in Pregnancy: Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or to become pregnant.

Precautions: If combined with other psychotropics or anticonvulsants, consider fully pharmacology of agents employed;

drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice,

skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.

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Nutley, New Jersey 07110

Missouri Medicine

THE JOURNAL OF THE MISSOURI STATE MEDICAL ASSOCIATION

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Illustrations should be glossy prints or drawings in India ink on white paper. They should not be mounted and name of author and figure

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Please give notice of change of address at least one month in advance of the change, giving old and new addresses.

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Famous Fighters



JOHN L. SULLIVAN
Bare-knuckles heavyweight champion
1882-1892

NEOSPORIN® Ointment (polymyxin B-bacitracin-neomycin) is a famous fighter, too.

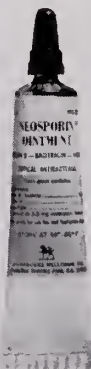
Provides overlapping, broad-spectrum antibacterial action to help combat infection caused by common susceptible pathogens (including staph and strep).

Each gram contains: Aerosporin® brand Polymyxin B Sulfate 5,000 units; zinc bacitracin 400 units; neomycin sulfate 5 mg (equivalent to 3.5 mg neomycin base); special white petrolatum qs in tubes of 1 oz and 1/2 oz and 1/32 oz (approx.) foil packets.

INDICATIONS: Therapeutically (as an adjunct to systemic therapy when indicated) for topical infections, primary or secondary, due to susceptible organisms, as in: • infected burns, skin grafts, surgical incisions, otitis externa • primary pyodermas (impetigo, ecthyma, sycosis vulgaris, paronychia) • secondarily infected dermatoses (eczema, herpes, and seborrheic dermatitis) • traumatic lesions, inflamed or suppurating as a result of bacterial infection.

Prophylactically, the ointment may be used to prevent bacterial contamination in burns, skin grafts, incisions, and other clean lesions. For abrasions, minor cuts and wounds accidentally incurred, its use may prevent the development of infection and permit wound healing. **CONTRAINDICATIONS:** Not for use in the eyes or external ear canal if the eardrum is perforated. This product is contraindicated in those individuals who have shown hypersensitivity to any of the components.

WARNING: Because of the potential hazard of nephrotoxicity and ototoxicity due to

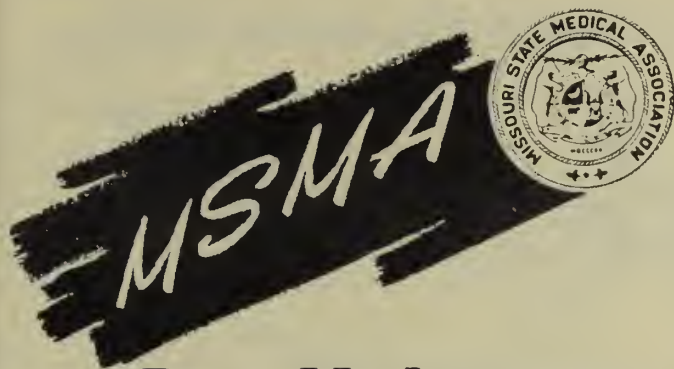


neomycin, care should be exercised when using this product in treating extensive burns, trophic ulceration and other extensive conditions where absorption of neomycin is possible. In burns where more than 20 percent of the body surface is affected, especially if the patient has impaired renal function or is receiving other aminoglycoside antibiotics concurrently, not more than one application a day is recommended. **PRECAUTIONS:** As with other antibacterial preparations, prolonged use may result in overgrowth of nonsusceptible organisms, including fungi. Appropriate measures should be taken if this occurs. **ADVERSE REACTIONS:** Neomycin is a not uncommon cutaneous sensitizer. Articles in the current literature indicate an increase in the prevalence of persons allergic to neomycin. Ototoxicity and nephrotoxicity have been reported (see Warning section).

Complete literature available on request from Professional Services Dept. PML.



Burroughs Wellcome Co.
Research Triangle Park
North Carolina 27709



NEWS

ROUND - UP

December, 1976

Ray McIntyre to retire Jan. 1

Ray McIntyre is retiring !
Yes, after 32 years with the Missouri State Medical Association, Raymond R. McIntyre — "the guy who got things done for Missouri doctors" — will step down as Executive Secretary effective Jan. 1, 1977.

Ray's association with the MSMA began in 1942 and has been interrupted only by a two-year hitch in the Navy during World War II. Returning in 1946 as Field Secretary, Ray (known to many as "Mac") set to work reviving local medical societies and is responsible for uniting several counties together to form single hyphenated county medical societies which could do more to serve their members.

Ray was deeply involved in physician placement and the Missouri State Medical Foundation's student loan program. He was instrumental in organizing the Missouri Health Council and served as its president. He was the first Executive Secretary of the Missouri Academy of General Practice.

In 1965, Ray became Executive Secretary of the MSMA.



Raymond R. McIntyre

Ray has been awarded the Distinguished Service Award of the Missouri Academy of General Practice and was elected an associate member of the Southern Medical Association. He holds an affiliate

membership in the American Medical Association and is a member of the Missouri Medical Political Action Committee and the American Association of Medical Society Executives.

Ray was married in 1938 to the former Martha Donaldson. They have two daughters and five grandchildren. Ray is a member of the Jefferson City Chamber of Commerce, the Rotary Club and the Methodist Church.

In 1973 he received the Distinguished Alumni Award from Central Methodist College in Fayette. While attending Central, Ray was a four-year member of the "C" Club. He played on Central's basketball conference title team all four years, was quarterback of the football team and captain of the basketball team. In addition, he was a student body officer, member of the Aristotelian Literary Society, Theta Chi Delta, Delta Phi Alpha and a "Campus Leader."

Ray and Martha are planning to remain in Jefferson City after retirement . . . and their many, many friends wish them happiness in the future.

Special edition to explain 'Why belong to the AMA'

"Why should I belong to the AMA? What does it do for me?"

The many reasons why every physician should enthusiastically support the AMA and every level of organized medicine are discussed in depth in a 16-page insert that will appear in the December 13 issue of *American Medical News*. It is entitled, "*What the AMA Dues Dollar Does*."

Every physician and medical student in the U.S. will receive this special issue. It will review the highlights of AMA's 1976 programs and activities that are primarily supported by the dues dollars.

MSMA members are urged to read the insert and encourage colleagues to do likewise.

Dr. Bradley, Dr. Stokes named to MSMA posts

Dr. Richard V. Bradley, of St. Louis, was named Councilor from the Third MSMA District and Dr. James M. Stokes, of St. Louis, was appointed MSMA Treasurer at the Council meeting held Nov. 3 in conjunction with the Interim Session Of the House of Delegates.

The moves were made necessary when Dr. Donald Judd, Third District Councilor, submitted his resignation in order to accept appointment as an Alternate Delegate to the AMA.

Also at the meeting, a committee composed of Drs. Louis Hetlage, Peter Ekern and John Torontow was appointed to study the matter of physician assistants and paramedical programs and report back to the Council.

Physician competence rules proposed by State Board

Proposed rules spelling out the powers of the State Board of Registration for the Healing Arts to determine the competence of a physician to practice or to practice within a specialty were published in the Missouri Register on Nov. 1.

The proposed rules would implement the language of Senate Bill 472 passed by the last General Assembly. Anyone may file a statement in support or opposition to the proposed rules by writing to the Board of Healing Arts. Following is the proposed language:

(1) Whenever the board determines in its discretion that it has probable cause to believe that any physician licensed by the board is unable to practice as a physician and surgeon or within a particular specialty with reasonable skill and safety to patients by reason of medical or osteopathic incompetency or that a physician fails to use that degree of skill and learning ordinarily used under the same or similar circumstances by members of his profession for any of the reasons set forth in section 334.100-1 (14) RSMo (Supp. 1976), the board may issue an order or orders to accomplish any of the following:

(A) A reexamination of the physician's general competency to practice. Such reexamination may be the ordinary licensing examination administered to applicants for licensure, any part of such examination, or a written examination prepared or approved by the board or a committee of the board appointed for such purpose.

(B) A reexamination of the physician's ability to practice within a specialty. Such examination may be prepared by the board or a committee of the board appointed for such purpose with (or without) consultation with one or more physicians who practice the same specialty and degree as the physician to be examined. In grading such examination, the board may consult with one or more physicians practicing in the same specialty as the physician to be examined.

(C) The examination of the pattern of practice and the physician's professional conduct. In conducting such an examination, the board may, through duly appointed investigators, gather such information as it deems appropriate. The foregoing does not preclude the board from receiving information from any other source.

(2) Whenever the board orders an examination or reexamination as contemplated by this regulation, the physician shall cooperate with the board by participating in such examination or reexamination and shall furnish such information as the board may require. Failure of the physician to submit to the examination or reexamination or to furnish such information shall be deemed an admission on the part of the physician that the matters which the board has probable cause to believe are, in fact, true. Thereafter, the board may order any of the corrective measures authorized by section 334.100-1(14), (14)(a) and (14)(a) RSMo (Supp. 1976).

Does 'ripping off' charge really fit malpractice case?

Many trial attorneys and other well-meaning people always present convincing arguments that there is no malpractice problem in Missouri, that the findings in most court actions are usually in favor of the physician and that premiums charged by carriers for professional liability insurance are a big "rip-off" by the insurance companies.

In July, 1975, the National Association of Insurance Commissioners began compiling closed claim files on medical malpractice insurance. This voluntary program requested all insurers that write at least \$1 million in premiums to submit a uniform claims report on each claim closed on or after July 1, 1975.

The following statistics were obtained from the third report issued. Basically, it reports claims closed between July 1, 1975, and May 3, 1976. It contains 12,918 reports.

In Missouri, the average time between the medical malpractice incident and the filing of suit was 12 months on minors and 13 months on adults. Also, the average time between the incident and the disposition of the case in Missouri was 31 months. Therefore, it would appear that most of the incidents reported occurred in 1973 and 1974 or earlier.

During this nine-month reporting period there were 222 claims reported closed in Missouri. Of these 222 claims, 100 were reported as being paid claims. On 39 of the 100 paid claims, more than \$10,000 was paid.

It appears from this statistical information that Missouri ranks 12th nationwide in the number of injuries in this reporting period. On nine of the 100 paid claims, more than \$50,000 was paid. The indemnity ranges from two cases at \$50,000 each to one \$768,000 case.

In addition, the claim expense for these nine cases of over \$50,000 paid amounts to \$99,948. Claim expense only includes that paid to outside defense counsel. It includes no overhead costs or cost of salaried employees who serve as claim adjusters and defense counsel.

It is interesting to note, that on the nine claims paid for over \$50,000 the time from the incident to disposition ranges from 31 months to 94 months. In other words, in several of the claims it was 6-8 years before the case was closed. The specialties indicated in the nine suits settled for over \$50,000 included anesthesiology, OB-GYN and plastic surgery.

One further statistic is that there are approximately 6,600 physicians including osteopathic physicians, housestaff, etc., in Missouri. Therefore, the average indemnity paid, not including any defense costs, would be approximately \$735 per physician. None of this information includes two recent judgments of \$888,000 and \$350,000 paid in Missouri.

Record number vote

Although a record number of voters turned out for the Nov. 2 Presidential Election in Missouri, the total number of ballots cast represented just 59 percent of all eligible voters.

The official state canvass showed 1,953,600 Missourians voting, breaking the previous record turnout of 1,934,000 in 1960. The official count gave Jimmy Carter 998,387 votes (or 51.1%) to Gerald Ford's 927,443 votes (or 47.5%). Eugene McCarthy received 24,029 votes (or 1.2%) while another 3,700 votes were scattered among several write-in candidates.

When elevated cholesterol calls for decreased saturates...

Mazola helps.

Helps lower serum cholesterol



Adapted from Anderson, J.T., Grande, F., and Keys, A.: Cholesterol-lowering diets, J. Am. Diet. Assoc., 62:133, 1973.

In this study, a standard diet was modified to produce a moderate cholesterol-lowering diet, using skim milk, lean meats, fish, two eggs per week, poultry, and Mazola[®] corn oil and corn oil margarine. The average decrease in serum cholesterol for the 12 subjects was 17%. Serum cholesterol was reduced even more (average of 29% for 36 subjects) when a strict diet was used, which excluded butterfat and margarine, further reduced meat and eggs, and allowed Mazola corn oil as the only visible fat. All changes were considered highly significant.

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A professional file of 11 patient and physician aids for reduction of risk in atherosclerosis and coronary heart disease is now available free upon request. Just mail this coupon to Dr. D.M. Rathmann, Mazola Nutrition Information Service, Best Foods, a Division of CPC International Inc., Department MH, Box 307, Coventry, Ct. 06238. Included are:

Patient Aids...Mazola helps your patients live with a cholesterol-control diet with (1) "A Diet for Today"—practical menus and recipes for cholesterol control. (2) "Beyond Diet...Exercise Your Way to Fitness and Heart Health." (3) "Q & A, Fats and Oils."



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Physician Aids...Mazola helps you evaluate and educate the high-risk patient with (1) "Coronary Risk Handbook." (2) Pad of coronary risk assessment and management forms. (3) Desk pad of heart anatomy. (4) "Atherosclerosis"—80-page physician education monograph with film order form. (5) "Learn...before it's too late"—52-page nutrition learning system for patients with film order form. (6) Reprint of "Cholesterol-lowering diets: Experimental trials and literature review." (7) "Nutritive Values of Food Products Made by Best Foods." (8) "A Note to Professionals about 'A Diet for Today.'"



Dr.
Name

Street Address

City

MM-2

State

Zip Code

in Brief

A summary of AMA, medical & health news

American Medical Association / 535 North Dearborn Street / Chicago, Illinois 60610 / Phone (312) 527-1500 / TWX 910-221-0300

THE AMA STRESSED the importance of local determination in its comments on a list of criteria for elective surgery under Medicare and Medicaid prepared by the House Subcommittee on Oversight and Investigations. In a letter to the subcommittee chairman, the AMA said it supported elimination of unnecessary services from Medicare and Medicaid and pointed out that the PSRO program was established to review the necessity and quality of services. It also noted that the cooperative efforts of the AMA, HEW and 38 national specialty societies already has resulted in the publication of *Sample Criteria for Short-Stay Hospital Review*. "We see no reason to develop additional criteria," the AMA said.

NINE BANKS are currently participating in the AMA Education and Research Foundation's guaranteed loan program offering financial assistance to medical students. The banks include Union National Bank, Little Rock, Ark., which recently joined the guaranteed loan program; Continental Illinois National Bank; Valley National Bank, Phoenix, Ariz.; Bank of America, Los Angeles; Riggs National Bank, Washington, D. C.; National Bank of Detroit; Deposit Guaranty National Bank, Jackson, Miss.; City National Bank & Trust Co., Columbus, Ohio; and Rainier National Bank, Seattle. The AMA-ERF guaranteed loan program began in 1962.

AVAILABLE FROM AMA: *Health Care Delivery in Rural Areas*, OP 465, an overview of rural health problems and strategies for delivery of health services. The cost is \$1.50 each for 1-99 copies and \$1.00 each for 100 or more . . . *Guide for Hospital Committees on Transfusions*, OP 87, for the hospital transfusion committee. Cost of pamphlet is 40¢ each for 1-99 copies and 30¢ each for 100 or more . . . *The French Health Care System*, OP 460, \$3.50, and *The British Health Care System*, OP 461, \$7.50, offer in-depth studies of the health care systems of both nations. May be purchased as a set for \$10.00. Write Order Dept., AMA Headquarters.

PART OF THE INCREASE in physicians' fees is the result of the rising cost of professional liability insurance. In 1975, according to an AMA survey and data obtained from federal agencies, patients paid an estimated \$1.24 for malpractice insurance—about 8.1% of the total cost of the visit—each time they saw a doctor. In 1973, patients paid only 30¢ per visit for malpractice insurance, or about 2.4% of the full amount of the visit. Physicians paid an average of \$1,905 for malpractice insurance in 1973. The average payment per physician in 1975 was \$7,887. Physicians' business expenses (including malpractice insurance) have been rising faster than increases in fees. From 1966-1974, business costs per patient rose 8.3% per year, while fees, according to the Consumer Price Index, went up at an average annual rate of 6.2%.

HIGHLIGHTS OF 1976 programs are included in a special report, "What the AMA Dues Dollar Does," a 16-page insert in the December 13 issue of *American Medical News*. The report, complete with percentage and dollar amounts, breaks down the 1976 budget into six major areas of activity: Disseminating Scientific Information, Representing the Profession, Serving the Public, Assisting the Physician and His Practice, Upgrading Care Through Educational Standards and Strengthening Organized Medicine.

NEW TO THE AMA's National Leadership Conference programming will be four optional seminars on January 20, supplementing the regularly planned program beginning January 21. Each seminar will have a separate fee and limited registration. Seminars include "Improving Practice Productivity," "Mastering Spokesmanship Principles," "Honing Your Political Skills" and "Mr. Chairman: How to Run and Control Your Meeting." The Conference will run through January 23 at the O'Hare Marriott Motor Hotel, Chicago.

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A brief summary of the Prescribing Information for
Lasix® (furosemide) Tablets 20 mg and 40 mg

WARNING—Lasix (furosemide) is a potent diuretic which if given in excessive amounts can lead to a profound diuresis with water and electrolyte depletion. Therefore, careful medical supervision is required, and dose and dose schedule have to be adjusted to the individual patient's needs. (See under "Dosage and Administration.")

Indications—Lasix (furosemide) is indicated for the treatment of the edema associated with congestive heart failure, cirrhosis of the liver, and renal disease, including the nephrotic syndrome.

Hypertension—Lasix (furosemide) may be used for the treatment of hypertension alone or in combination with other antihypertensive drugs. Hypertensive patients who cannot be adequately controlled with thiazides will probably also not be adequately controllable with Lasix (furosemide) alone.

CONTRAINDICATIONS—Because animal reproductive studies have shown that Lasix (furosemide) may cause fetal abnormalities, the drug is contraindicated in women of childbearing potential. (See "Additional Information.")

Lasix (furosemide) is contraindicated in anuria. If increasing azotemia and oliguria occur during treatment of severe progressive renal disease, the drug should be discontinued. In hepatic coma and in states of electrolyte depletion, therapy should not be instituted until the basic condition is improved or corrected. Lasix (furosemide) is contraindicated in patients with a history of hypersensitivity to this compound.

Warnings—Excessive diuresis may result in dehydration and reduction in blood volume, with circulatory collapse and with the possibility of vascular thrombosis and embolism, particularly in elderly patients. Excessive loss of potassium in patients receiving digitalis glycosides may precipitate digitalis toxicity. Care should also be exercised in patients receiving potassium depleting steroids.

Frequent serum electrolyte, CO_2 and BUN determinations should be performed during the first few months of therapy and periodically thereafter, and abnormalities corrected or the drug temporarily withdrawn.

In patients with hepatic cirrhosis and ascites, initiation of therapy with Lasix (furosemide) is best carried out in the hospital. Sudden alterations of fluid and electrolyte balance in patients with cirrhosis may precipitate hepatic coma; therefore, strict observation is necessary during the period of diuresis. Supplemental potassium chloride and, if required, an aldosterone antagonist are helpful in preventing hypokalemia and metabolic alkalosis.

Patients should be observed regularly for the possible occurrence of blood dyscrasias, liver damage, or other idiosyncratic reactions.

In those instances where potassium supplementation is required, an oral liquid preparation should be used rather than enteric-coated potassium salts.

There have been several reports, published and unpublished, concerning nonspecific small-bowel lesions consisting of stenosis, with or without ulceration, associated with the administration of enteric-coated thiazides with potassium salts. These lesions may occur with enteric-coated potassium tablets alone or when they are used with nonenteric-coated thiazides, or certain other oral diuretics.

These small-bowel lesions have caused obstruction, hemorrhage, and perforation. Surgery was frequently required, and deaths have occurred.

Available information tends to implicate enteric-coated potassium salts, although lesions of this type also occur spontaneously. Therefore, coated potassium-containing formulations should be administered only when indicated and should be discontinued immediately if abdominal pain, distention, nausea, vomiting, or gastrointestinal bleeding occurs.

Patients with known sulfonamide sensitivity may show allergic reactions to Lasix (furosemide).

Precautions—As with any potent diuretic, electrolyte depletion may occur during therapy with Lasix (furosemide), especially in patients receiving higher doses and a restricted salt intake. Electrolyte depletion may manifest itself by weakness, dizziness, lethargy, leg cramps, anorexia, vomiting, and/or mental confusion.

Asymptomatic hyperuricemia can occur and gout may rarely be precipitated. Reversible elevations of BUN may be seen. These have been observed in association with dehydration, which should be avoided, particularly in patients with renal insufficiency.

When parenteral use of Lasix (furosemide) precedes its oral use, it should be kept in mind that cases of tinnitus and reversible hearing impairment have been reported. There have also been some reports of cases in which irreversible hearing impairment occurred. Usually, ototoxicity has been reported when Lasix (furosemide) was injected rapidly in patients with severe impairment of renal function at doses exceeding several times the usual recommended dose and in whom other drugs known to be ototoxic were often given. If the physician elects to use high dose parenteral therapy in patients with severely impaired renal function, controlled intravenous infusion is advisable (for adults, it has been reported that an infusion rate not exceeding 4 mg Lasix [furosemide] per minute has been used).

Increases in blood glucose, and alterations in glucose tolerance tests with abnormalities of the fasting and two-hour postprandial sugar have been observed, and rare cases of precipitation of diabetes mellitus have been reported.

Lasix (furosemide) may lower serum calcium levels, and rare cases of tetany have been reported.

Patients receiving high doses of salicylates, in conjunction with Lasix (furosemide) may experience salicylate toxicity at lower doses because of competitive renal excretory sites.

Diuretics such as furosemide may enhance the nephrotoxicity of cephaloridine. Therefore, Lasix (furosemide) and cephaloridine should not be administered simultaneously.

Sulfonamide diuretics have been reported to decrease arterial responsiveness to pressor amines and to enhance the effect of tubocurarine. Great caution should be exercised in administering curare or its deriva-

tives to patients undergoing therapy with Lasix (furosemide), and it is advisable to discontinue Lasix (furosemide) for one week prior to any elective surgery.

Adverse Reactions—Various forms of dermatitis, including urticaria and rare forms of exfoliative dermatitis, erythema multiforme, pruritus, paresthesia, blurring of vision, postural hypotension, nausea, vomiting, or diarrhea.

Anemia, leukopenia, aplastic anemia, and thrombocytopenia (with purpura). Rare cases of agranulocytosis which responded to treatment.

In addition, the following rare adverse reactions have been reported; however, relationship to the drug has not been established with certainty: sweet taste, oral and gastric burning, paradoxical swelling, headache, jaundice, thrombophlebitis and emboli and acute pancreatitis.

Lasix (furosemide)-induced diuresis may be accompanied by weakness, fatigue, lightheadedness or dizziness, muscle cramps, thirst, increased perspiration, urinary bladder spasm, and symptoms of urinary frequency.

Dosage and Administration

ADULTS

The usual adult dose of Lasix (furosemide) is 20 to 80 mg given as a single dose.

If the diuretic response with a single dose of 20 to 80 mg is not satisfactory, the following schedule should be used: Increase this dose by increments of 20 or 40 mg not sooner than 6 to 8 hours after the previous dose until the desired diuretic effect has been obtained. This individually determined single dose should then be given once or twice daily. The dose of Lasix (furosemide) may be carefully titrated up to 600 mg per day in those patients with severe clinical edematous states.

With doses exceeding 80 mg/day and given for prolonged periods, careful clinical and laboratory observations are particularly advisable.

Hypertension—The usual dose of Lasix (furosemide) is 40 mg twice daily both for initiation of therapy and for maintenance. Careful observations for changes in blood pressure must be made when this compound is used with other antihypertensive drugs, especially during initial therapy. The dosage of other agents must be reduced by at least 50 percent as soon as Lasix (furosemide) is added to the regimen to prevent excessive drop in blood pressure. As the blood pressure falls under the potentiating effect of Lasix (furosemide), a further reduction in dosage, or even discontinuation, of other antihypertensive drugs may be necessary. It is further recommended, if 40 mg twice daily does not lead to a clinically satisfactory response, to add other hypotensive agents, e.g., reserpine, rather than to increase the dose of Lasix (furosemide).

INFANTS AND CHILDREN

Pediatric Administration: The usual initial dose of oral Lasix in infants and children is 2 mg/kg body weight, given as a single dose. If the diuretic response is not satisfactory after the initial dose, dosage may be increased by 1 or 2 mg/kg not sooner than 6 to 8 hours after the previous dose. Doses greater than 6 mg/kg body weight are not recommended.

For maintenance therapy in infants and children, the dose should be adjusted to the minimum effective level.

How Supplied—Lasix Tablets 40 mg (furosemide) supplied as white, round, monogrammed, scored tablets.

Lasix Tablets 20 mg (furosemide) supplied as white, oval, monogrammed tablets.

Note: Dispense in dark containers. Exposure to light may cause slight discoloration which, however, does not alter potency.

Additional Information

Toxicology

The acute toxicity of Lasix (furosemide) has been determined in mice, rats, and dogs. In all three animal species, the oral LD_{50} of Lasix (furosemide) exceeded 1000 mg/kg of body weight, while the intravenous LD_{50} ranged from 300 to 680 mg/kg. Intragastric injection of the drug in newborn rats resulted in an LD_{50} of 380 mg/kg.

The acute toxicity of high doses of Lasix (furosemide) was characterized by convulsions, paralysis, and collapse. Surviving animals often became dehydrated and depleted of electrolytes due to the diuresis induced by Lasix (furosemide). In the newborn rats, intragastric injection of the drug caused hyperactivity and anorexia.

Chronic toxicity studies with Lasix (furosemide) were done in rats and dogs. In a one-year study in rats, renal tubular degeneration occurred with all doses higher than 50 mg/kg (4 times the maximal recommended human dose of 600 mg per day). A six-month study in dogs revealed calcification and scarring of the renal parenchyma at all doses above 10 mg/kg (83 percent of the maximal recommended human dose of 600 mg per day).

Reproductive Studies

The effects of Lasix (furosemide) on embryonic and fetal development and on pregnant dams were studied in mice, rats, and rabbits.

Lasix (furosemide) caused unexplained maternal deaths and abortions in the rabbit when 50 mg/kg (4 times the maximal recommended human dose of 600 mg per day) was administered between days 12 to 17 of gestation. In a previous study the lowest dose of only 25 mg/kg (2 times the maximal recommended human dose of 600 mg per day) caused maternal deaths and abortions. In a third study, none of the pregnant rabbits survived a dose of 100 mg/kg. Data from the above studies indicate fetal lethality which can precede maternal deaths.

The results of the mouse study and one of the three rabbit studies also showed an increased incidence of hydronephrosis (distention of the renal pelvis and, in some cases, of the ureters) in fetuses derived from treated dams as compared to the incidence in fetuses from the control group.



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Griffiths, L.L., Brocklehurst, J.C., MacLean, R. et al.
Diet in Old Age, Brit. Med. J., 1:739, 1966.



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Indications: Based on a review of this drug by the NAS/NRC and/or other information, FDA has classified the following indications as possibly effective: adjunctive therapy in the treatment of peptic ulcer; the treatment of the irritable bowel syndrome (irritable colon, spastic colon, mucous colitis) and acute enterocolitis. Final classification of the less-than-effective indications requires further investigation.

Brief summary. Contraindicated in patients with glaucoma, renal or hepatic disease, obstructive uropathy (for example, bladder neck obstruction due to prostatic hypertrophy) or a hypersensitivity to any of the ingredients. Blurred vision, dry mouth, difficult urination, and flushing or dryness of the skin may occur at higher dosage levels, rarely at the usual dosage.

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Professional Relations Division, Beltone Electronics Corporation
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The Council Reports

Meeting of Nov. 3, 1976

John N. Martin, M.D., St. Joseph, Chairman, called the meeting to order. Those present were Drs. Martin; Max S. Franklin, St. Louis; Howard J. McAlhany, Springfeld; Richard V. Bradley, St. Louis; J. Russell Comer, New London; Louis P. Hetlage, Troy; H. Peter Ekern, Mexico; R. John Torontow, Nevada; Andrew McCanse, Kansas City; Walter A. German, Jr., Springfield; Claude W. Cooper, Thayer; Eugene T. Hansbrough, Poplar Bluff; Stanley S. Peterson, Springfield; James C. Sisk, St. Louis; Melvin C. Kasten, Cape Girardeau; Lawrence W. O'Neal, St. Louis; Robert A. Slickman, Kansas City; William D. Bradshaw, Columbia; William C. Allen, Columbia; Gerald L. Miller, Kansas City; Walter T. Gunn, St. Louis; Jack N. Wiles, West Plains; Gordon R. Garrett, Ed.D., St. Louis; Messrs. Hollister S. Smith, St. Louis and James E. Thompson, Jr., Springfield; Mrs. George P. Wilson, Columbia; Mrs. W. Jack Stelmach, Kansas City; Messrs. Ray McIntyre, Royal O. Cooper, C. C. Swarens, Don Wilson, Ron Ellison and John Kuebler, Staff.

A motion to approve the minutes of the September 25, 1976 Council Meeting was seconded and approved.

Chairman Martin introduced Mr. John Kuebler, who was recently employed as Governmental Relations Director for MSMA.

RESIGNATION OF THIRD DISTRICT COUNCILOR

Dr. Martin reported that an official letter of resignation had been received from Dr. Donald Judd, Third District Councilor. Dr. Judd had recently been appointed as an AMA Alternate Delegate.

A motion to accept Dr. Judd's resignation as Third District Councilor was seconded and adopted.

It was then pointed out that the MSMA Constitution authorizes the council to appoint someone to serve as Third District Councilor until the vacancy is filled at the next Annual Session of MSMA.

Dr. Franklin moved that Dr. Richard Bradley of St. Louis be appointed as Third District Councilor. The motion was seconded and carried.

Dr. Bradley stated that he would like to resign as Treasurer since he had been elected Councilor from the Third District.

A motion to accept Dr. Bradley's resignation as Treasurer was seconded and adopted.

Dr. Franklin moved that Dr. James M. Stokes of St. Louis be appointed as Treasurer to fill the unexpired term of Dr. Bradley. The motion was seconded and carried.

Dr. Martin stated that he would like to appoint Dr. Stokes, the newly elected Treasurer, to the Budget Committee.

COMMITTEE TO STUDY PARAMEDICAL PERSONNEL AND PHYSICIAN ASSISTANTS

Dr. Hetlage stated that at the last Council Meeting there had been a discussion about appointing a committee to study the matter of physician assistants and paramedical programs and report back to the Council on what is going on in these areas.

Chairman Martin appointed the following to serve on this Committee: Drs. Hetlage, Chairman Ekern and Torontow.

REMARKS OF PRESIDENT FRANKLIN

President Franklin reported that he had attended the Executive Committee meeting of Blue Shield and discussed with them the resolution passed by the Council regarding Blue Cross.

Dr. Franklin reported that he had attended the National Meeting of Blue Shield in Chicago. He also reported that he had attended the Fall Conference of the Auxiliary and that the conference was successful and well-attended. Dr. Franklin stated that he would like to commend Mrs. Wilson, Mrs. Stelmach and the Auxiliary for the good job that they are doing.

Dr. Franklin reported that he had received a copy of a letter written by a St. Louis physician to the Superintendent of the Division of Insurance and he felt that this should be referred to a Commission or Committee for study.

Chairman Martin indicated that this would be referred to the Commission on Medical Economics, Third Party Medicine and Governmental Relations.

Dr. Bradley introduced Gordon R. Garrett, Ed.D., the new Executive Secretary of the St. Louis Medical Society.

COUNCILOR DISTRICT REPORTS

Eighth District—Dr. German reported that due to unavoidable circumstances, some resolutions from Greene County did not get into the Handbook. He indicated that according to MSMA Bylaws, 200 copies would be available for the use of the Delegates.

Second District—Dr. Comer reported that a mobile screening clinic has been in his District providing examinations to anyone who wanted them. Dr. Hetlage stated that union groups in his District also had been doing this type of examination.

Fourth District—Dr. Hetlage stated that the Fourth District had no report.

Seventh District—Dr. McCanse reported that he had no report at this time.

First District—Dr. Martin reported that there has been little participation in HSAs. He stated that he felt that each of the Councilors should talk to the physicians in his area about getting involved in the HSA on the local level (sub-council committees).

AMA PROPOSAL FOR DIRECT BILLING

Mr. McIntyre stated that in the absence of Dr. Ritter, he would like to mention the AMA proposal for direct billing. He stated that at its September meeting, the Council had directed the AMA Delegates to oppose this proposal. The AMA Delegates will receive an explanation in their Handbook relative to this proposal.

Dr. Peterson stated that an ad hoc committee of the Commission on Medical Economics has been meeting with the Division of Family Services on Medicaid fees and he urged all present to encourage their delegates to vote favorably on the Medicaid resolution that would be discussed at the Interim Session House of Delegates.

Dr. Comer stated that he had recently read an article on the AMA Seminar on Negotiations and asked if anyone had any comments about it. Dr. McCanse stated that Allen Smith, Executive Secretary of the Jackson County Medical

(Continued on page 656)

medical melange

Notes of interest from Here

. . . .

and There

An oil portrait of **Dr. William E. Allen, Jr.** of St. Louis was unveiled at a dinner in his honor at the Clayton Club on November 22. Dr. Allen was the first black physician to be certified in radiology by the American Board of Radiology (1935). A radiologist at St. Louis University School of Medicine, his portrait will hang in the school's new Department of Radiation Oncology, which he helped found. Dr. Allen was awarded the Gold Medal from the American College of Radiology in 1974. He established the School of Radiologic Technology at Homer G. Phillips Hospital and has provided scholarships for students from Haiti, Nigeria, Liberia and South Africa so that the scholars could study at the Hospital. He is the former director of the Department of Radiology at Homer Phillips Hospital.

Dr. Ernest E. Wadlow of St. Joseph was awarded the Paul Harris Fellowship Award, the highest citation available in Rotary, at a special meeting celebrating the birthday of the Uptown Rotary Club, No. 32 at the St. Joseph Country Club on November 10. The service award, which is named after the founder of Rotary, was presented to Dr. Wadlow on the basis of his work within the organization and in the community. Dr. Wadlow is an obstetrician. He was president of the Uptown Club in 1955-1956 and was one of the original organizers of the East Side Rotary Club in St. Joseph.

Dr. I. T. Craig, Joplin, was honored at a luncheon by the employees of the surgery unit of St. John's Medical Center upon his retirement from active practice and after 37 years on the hospital's medical staff. When Dr. Craig opened his office in 1939, he was the only obstetrician and gynecologist in the Joplin area. He gave up his obstetrical practice in 1972 to devote his time entirely to the practice of gynecology. At that time, he estimates he had delivered more than 9,000 babies. Dr. Craig graduated from Tulane University Medical School in New Orleans, La. He took his internship at Kansas City General Hospital and his post-graduate work was at the Mayo Clinic in Rochester, Minn. Dr. and Mrs. Craig are now residing in Sarasota, Fla.

Dr. Henry E. Oppenheimer, Clayton, was the featured speaker at the Northwest Arkansas Diabetes Conference held in Fayette, Ark. on November 19. His topic was "Diabetes Mellitus: Diagnosis and Treatment."

William A. Werner, M.D., St. Louis, was elected second vice-president of the Mississippi Valley Conference (MVC) on Lung Disease at the annual meeting in Kansas City in October. The MVC incorporates American Lung associations from a ten-state midwestern region. A faculty member at St. Louis University and a lung specialist on the staff of Mount St. Rose Hospital, Dr. Werner is a board member and past-president of the American Lung Association of Eastern Missouri. He also is a member of the national board of directors of the American Lung Association.

Dec. 13	Clinical Utility of Ultrasound (1977)
Jan. 10	Oral Cholecystography
Feb. 14	Esophageal Ulcer Disease
Apr. 11	Osteophytes, Syndesmophytes and other "Syghtes"
May 9	Newer Trends in Mammography—Med- ical and Physical

From the Medical Schools



SAINT LOUIS UNIVERSITY

Dedication ceremonies for the Bordley Memorial Pavilion marked the culmination of a \$20 million construction and expansion project at Saint Louis University Medical Center on October 20. The ceremonies were held in conjunction with a Community-University Conference, "The Bottom Line for Health: Whose Responsibility?"

Among the participants were *Theodore Cooper*, M.D., Assistant Secretary for Health, United States Department of Health, Education, and Welfare; *The Most Reverend John N. Wurm*, Auxiliary Bishop of St. Louis; *Joseph F. Ruwitch*, vice chairman, Committee on the Medical Center, University Board of Trustees; *Clarence C. Barksdale*, President, St. Louis Regional Commerce and Growth Association and Chairman and Chief Executive Officer, First National Bank in St. Louis; *Harold E. Thayer*, President, Civic Progress, Inc. and Chairman and Chief Executive Officer, Mallinckrodt, Inc.; *Paul J. Simon*, President, Board of Aldermen, City of St. Louis; *George E. Thoma*, M.D., vice-president for the Medical Center; and *The Reverend James C. Sunderland*, S.J., hospital chaplain.

The Pavilion is a six-floor addition to Saint Louis University Hospitals and provides an adjunct to Firmin Desloge Hospital which consists of a 37-bed facility and special services to the chronically and incurably ill.

Major components of the 205,000 square-foot facility include a modern, 15-story transportation tower that serves both Bordley and Firmin Desloge Hospital; an expanded and modern Emergency Department, which has been transferred to the Pavilion from Firmin Desloge; an enlarged Physical Medicine Department with full facilities for rehabilitation and therapy; and an attractive, enlarged cafeteria for Bordley-Desloge-Wohl with separate sections for public, patients, and special diet food preparation services.

The third floor of the Pavilion has thirty-seven hospital rooms, a \$1.2 million Diagnostic Radiology Department and a new Radiation Oncology Department. The Operating Suites have been moved from Firmin Desloge to expanded quarters in Bordley with ten operating rooms and two cysto rooms.



Bordley Memorial Pavilion, St. Louis University Hospitals.

The outpatient facilities have also been greatly expanded.

"The Bottom Line for Health: Whose Responsibility?" was an invitational Community-University Conference to provide a forum for the discussion of major health issues facing the community in order to promote involvement by leaders in business, labor, education and community affairs in the solution of today's health problems. *Armand Stalnaker*, Ph.D., president and chairman, General American Life Insurance Company, St. Louis, delivered the keynote address, "The Responsibility for Health."

For many years, Saint Louis University sponsored an annual conference intended to combine the resources of the community with those of the University in seeking solutions for some significant problems. These conferences, which were suspended for several years, were resumed this year.

UNIVERSITY OF MISSOURI—COLUMBIA

Dr. Marion S. DeWeese, former chairman of the Department of Surgery, returned as a visiting professor and lecturer during the week of November 1. On November 6, the Marion S. DeWeese Seminar Room was dedicated in his honor.

Dr. DeWeese spoke on "Some Changing Trends in Surgical Education," the lecture sponsored by the Marion S. DeWeese Surgical Society, which was formed in 1973 by the surgical residents who trained under him.

Dr. Kirt Nichols, who is on the VA Hospital staff, is now secretary-treasurer of the Society and *Dr. Howard Mussell* of the Department of Surgery is president-elect. The president is *Dr. Terry Sinclair* (Class of 1972), who is in private practice in Virginia.

A graduate of the University of Michigan Medical School, *Dr. DeWeese* became chairman of surgery at UMMC in 1964. The next year, he was named the first W. Alton Jones Distinguished Professor of Surgery. In 1974, he returned to private practice in Ann Arbor, Mich. He remains an active academician with participation in affairs at the University of Michigan Medical School and the residency program at St. Joseph Mercy Hospital.

Dr. Frank B. Engley, professor of microbiology, presented several talks in Europe. On November 3-4, he spoke to the Swiss Hospital Infection Control Association. He was in Madrid, Spain to speak at the dedication of a new hospital named for Dr. Ramon J. Cajal (a Nobel Prize winner in Medicine) on November 5. On November 8-9, he was at the Hygiene Institute of Hamburg to talk with West German scientists about biological monitoring.

William Corwin Allen, M.D., has been appointed professor and chief of orthopaedic surgery at the School of Medicine and Medical Center. He will arrive in Columbia on December 15 to assume his new responsibilities.

For the past ten years *Dr. Allen* has been on the faculty at the University of Florida College of Medicine in Gainesville. A nationally recognized physician in sports medicine, he held a joint appointment there in orthopaedics and mechanical engineering.

Dr. Thomas Culley, medical director at the Harry S Truman VA Hospital in Columbia, has been acting chief of orthopaedic surgery at UMC Medical Center since *Dr. Lynn Litton* went into private practice in Columbia.

UNIVERSITY OF MISSOURI—KANSAS CITY

Three distinguished physicians contributed to the educational program of the School of Medicine by

serving as visiting docents during the month of October.

Dr. Rachmiel Levine made rounds on medicine on October 6-8 and presented lectures on "An Update on Diabetes Mellitus" and "The Role of Insulin and of Glucagon in the Regulation of Blood Sugar." *Dr. Levine* is the director of the City of Hope Medical Center and honorary president of the International Diabetes Federation.

Dr. Milton S. Grossman also made rounds in medicine on October 25-27 and presented lectures on "Emergencies in Adolescent Medicine," "Anorexia Nervosa" and "Gender Identity and Behavior." *Dr. Grossman* is professor of pediatrics at the University of Miami School of Medicine and chairman, Department of Pediatrics, Mount Sinai Medical Center, Miami Beach, Fla.

Dr. James A. Pittman, Jr. made rounds on medicine on October 19-20 and presented lectures on "Choice of Therapy in Hyperthyroidism" and "Pathogenesis of Hypothyroidism." He is dean of the University of Alabama at Birmingham School of Medicine, deputy vice-president for health affairs and executive dean, University of Alabama System Medical Education Program.

For a period of five years, the Chancellor has asked a group of distinguished individuals to serve as consultants to him and to assess the progress of the School of Medicine. The consultants, who made their Fourth Annual Visit from October 31 through November 3, are *Mr. Norman Cousins*, editor, *Saturday Review/World*; *Merlin K. DuVal*, M.D., vice-chancellor, University of Arizona Medical Center; *Alfred P. Fishman*, M.D., director, Cardiovascular Pulmonary Division, Department of Medicine, Hospital of the University of Pennsylvania; *Mr. Boisfeuillet Jones*, president, Emily and Ernest Woodruff Foundation of Atlanta; *Frederick C. Robbins*, M.D., dean, Case Western Reserve University School of Medicine; *Mr. Homer C. Wadsworth*, director, The Cleveland Foundation; and *Kerr L. White*, M.D., professor, Department of Medical Care and Hospitals, The Johns Hopkins University.

The Council Reports

(Continued from page 652)

Society, had attended one of the seminars and was very impressed with it.

Mr. Cooper stated that the MSMA House of Delegates had adopted a resolution at its April meeting calling for some mechanism of negotiations to be developed. The Commission on Medical Economics has recommended that the negotiations mechanism be set up in our present Asso-

ciation. He also stated that the AMA had set up a Department of Negotiations.

Mr. Cooper said that the negotiations seminars offered by the AMA consist of a week-long seminar and a two-day seminar designed primarily for physicians and that this is a good short course on negotiations.

The meeting adjourned.

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BREAST CANCER PROJECT RECEIVES TEACHING GRANT

The Breast Cancer Detection Demonstration Project in Columbia has been awarded a Teaching Grant from the Cancer Control Section of the Department of Health, Education and Welfare of the Public Health Service.

The purpose of this teaching program is to introduce and to teach in depth the modalities currently used in earlier breast cancer detection. These include xeroradiography, thermography and physical examination. The course (a minimum of one week) is open to paramedical personnel of Missouri, including x-ray technologists, thermography technologists and nurses. Training for interested physicians will be organized on an individual basis.

The course is designed to acquaint the medical community with various techniques for early breast cancer detection, with the thought of implementation of future programs that might be used in institutions or private practice.

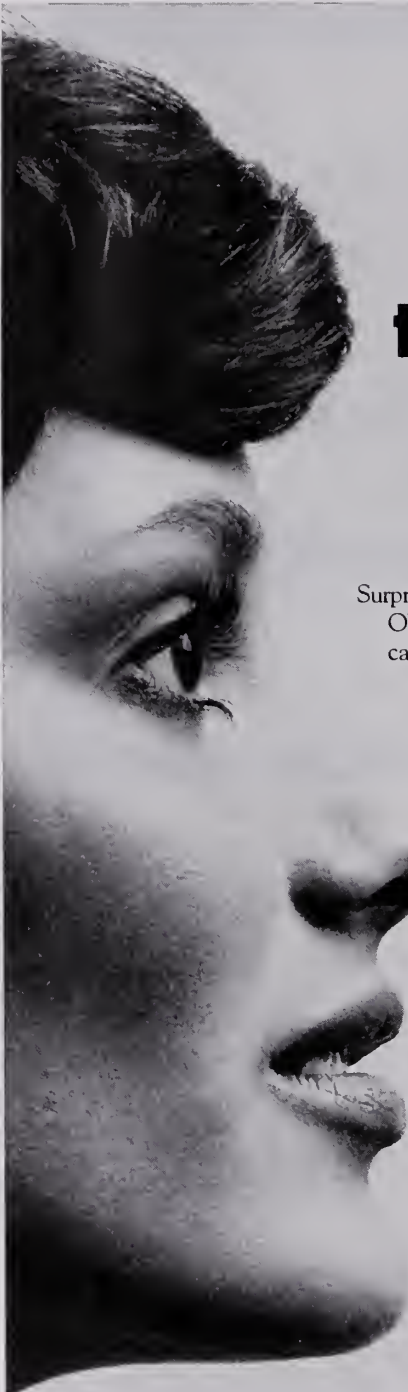
Each individual will be taught on a one-to-one basis, i.e., one student—one instructor. The program will be tailored for each individual's goals, previous education, experience and future use. For example, for the interested x-ray technologist, the techniques of mammography (xeroradiography) and thermogra-

phy will be stressed. For the radiologist physician, interpretation of the two types of images will be one of the educational goals. A teaching collection from the American College of Radiology stresses examples of each modality and contains numerous examples of normal and abnormal examinations. There also are a reprint file, a medical library and audiovisual aids such as tapes on physical examination, mammography and thermography.

There is no fee for this course. The participants enrolled should be prepared to furnish their own lodging and meals, except lunch.

Motels are within walking distance of the Cancer Research Center building in which the Breast Cancer Detection Demonstration Project Teaching Program will be given, and there is availability of lunch at no cost at the Ellis Fischel State Cancer Hospital, which is located in this medical complex. The participants also will have to furnish their own method of transportation.

Dates for the course will be announced later for those who desire to attend. Anyone interested in attending this course should contact Dr. Corinne Farrell, Education Program Coordinator, Breast Cancer Detection Demonstration Project, Business Loop 70 & Garth Ave., Columbia, Mo. 65201.



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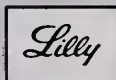
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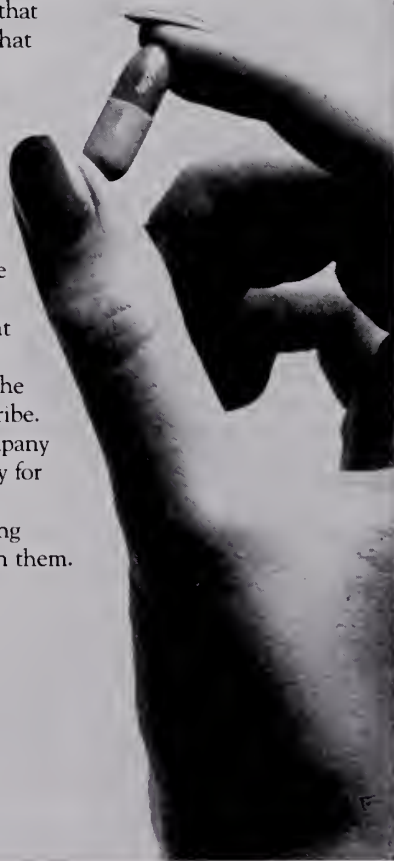
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ALLEN J. PATTON, M.D. and

CARL G. KARDINAL, M.D., *Columbia*

Chronic Lymphocytic Leukemia: An Aggressive Disease

CHRONIC LYMPHOCYTIC LEUKEMIA (CLL) frequently fails to arouse any real interest or anxiety in the practicing physician. It is the most common of all leukemias, most chronic of all leukemias and most asymptomatic of all leukemias. Long survivals of 20 years or more are not uncommon and death with CLL instead of from CLL is not unusual.

This lack of interest is supported by the pessimistic attitude of many hematologists with regard to the influence of treatment on the natural history of the disease. When available data are analyzed, however, the complacency toward this "indolent disease" does not appear warranted. Median survivals in patients with CLL are reported to be from two and one half to six years from the time of diagnosis (Table 1).¹⁻⁹ However, individual survival times vary to such extremes that median survival figures have little relevance to any particular patient.

Can patients with indolent CLL be differentiated from those patients with an aggressive form of the disease? Does indolent CLL progress into a more aggressive form or do indolent cases tend to remain indolent? What are the indications for treatment in CLL? Does treatment increase survival? These questions are not totally answerable but must be considered in the evaluation of each new case of chronic lymphocytic leukemia.

INDOLENT CLL

Many patients with CLL have a very indolent course over a period of many years and die of unrelated causes. Their disease is often noted as an incidental finding. These patients are asymptomatic;

have minimal, if any, lymphadenopathy; and are neither anemic nor thrombocytopenic. Boggs *et al*³ have noted that patients who survive for more than five years are younger at diagnosis than those who survive less than five years. He suggests that CLL may be present some years before the onset of symptoms and that survival from time of diagnosis depends upon when the diagnosis is made in relationship to the actual onset of the disease.

It does appear that patients with indolent disease have a lower total body lymphocyte burden than patients with more aggressive forms of the disease.¹⁰ It also appears that CLL is a disease of accumulation of mature, long-lived, recirculating and immunologically incompetent lymphocytes.¹¹ The implication is that indolent forms of the disease will gradually become more aggressive as the

TABLE 1
SURVIVAL IN CLL

Author	Period	Number	Median Survival YR
Reinhard <i>et al</i> ¹	1942-1957	102	5
Hansen ²	1954-1963	189	4
Boggs <i>et al</i> ³	1945-1964	130	6
Green and Dixon ⁴	1945-1957	125	3.5
Zippin <i>et al</i> ⁵	1955-1964	839	4
Rai <i>et al</i> ⁶	1941-1971	125	6
Cutler <i>et al</i> ⁷	Before 1955	1,217	(26%) 5
	After 1955	1,011	(37%) 5
Axtell <i>et al</i> ⁸	1955-1964	1,954	2.5
Huguley, Southeast Group ⁹	1957-1961	140	3.3

Chronic lymphocytic leukemia usually is considered to be the most benign of the malignant processes. Although it can have an indolent course, it frequently has an aggressive nature with a survival time as short as that for the acute leukemias. The authors review a clinical staging method for distinguishing the indolent and aggressive forms and summarize indications for treatment and the effect of treatment upon survival. Dr. Patton is Associate Internist and Dr. Kardinal is Director of Internal Medicine, Ellis Fischel State Cancer Hospital. This investigation was supported by Western Cancer Study Group Grant CA-06800 awarded by the National Cancer Institute, DHEW.

total body lymphocyte burden increases. In actual clinical practice, however, many indolent cases seem to remain indolent and some patients present with an aggressive form of the disease without having gone through a recognizable indolent phase.

AGGRESSIVE CLL

Since the median survival of patients with CLL is in the range of four to six years rather than ten to 15 years, it is apparent that most cases either progress into or present with an aggressive form of the disease. With an increase in the total body lymphocyte burden, lymphadenopathy progresses, splenomegaly and hepatomegaly develop and the peripheral blood lymphocytosis increases. With a progressive increase in the total marrow volume occupied by lymphocytes, anemia and thrombocytopenia occur. After the development of anemia or thrombocytopenia or both, survival is generally less than two years.⁵ These patients also often have constitutional symptoms such as weight loss and unexplained fever.

Within the past 12 months, three patients with aggressive CLL have been admitted to the Ellis Fischel State Cancer Hospital. One of these patients died of overwhelming sepsis, and the other two are under active treatment. Each of these pa-

TABLE 2
IMMUNOLOGIC COMPLICATIONS OF CLL

Hypogammaglobulinemia
Cryoglobulinemia
Paraproteinemia (IgM or IgG)
Autoimmune Hemolytic Anemia
Immune Thrombocytopenia

tients presented with profound anemia, thrombocytopenia, splenomegaly and peripheral blood lymphocytosis of $>100,000/\text{mm}^3$. Control of these cases has been difficult. None has achieved a satisfactory remission, and the two patients remaining alive have a continuous problem with thrombocytopenia and bleeding. The clinical presentation of these patients would have been more typical for an "acute" than a "chronic" leukemia. The fulminant nature of these cases cannot be overemphasized.

IMMUNOLOGIC COMPLICATIONS OF CLL

Dameshek¹¹ has described CLL as a disease of immunologically incompetent lymphocytes. CLL is associated with a series of abnormal immune manifestations in the advanced stages of the disease (Table 2). Hypogammaglobulinemia is the most frequent disorder of immunoglobulin synthesis associated with CLL, but monoclonal gammopathies also have been reported.¹² These abnormalities of immunoglobulin synthesis are associated with an increased incidence of clinical infections and with a poor prognosis. Autoimmune (Coomb's positive) hemolytic anemia and autoimmune thrombocytopenia also may complicate CLL.

STAGING OF CLL

Rai *et al*⁶ have devised a method of clinically staging CLL which appears to correlate with survival (Table 3). Stage 0 is asymptomatic lymphocytosis in blood ($>15,000/\text{mm}^3$ absolute lymphocytes) and bone marrow ($>40\%$). Stage I is lymphocytosis with enlarged lymph nodes. Stage II is lymphocytosis with hepatosplenomegaly with or without lymphadenopathy. Stage III is lymphocytosis with anemia and with or without hepatosplenomegaly and lymphadenopathy. Stage

TABLE 3
CLINICAL STAGING CLL

Stage	Symptoms ^a	Characteristics	Median Survival
0	0	Lymphocytosis only	>12 years
I	1+	Lymphocytosis and lymphadenopathy	
II	2+	Lymphocytosis and hepatosplenomegaly	6 years
III	3+	Lymphocytosis and anemia	
IV	4+	Lymphocytosis and thrombocytopenia	1.5 years

^a Weakness, fatigue, weight loss, sweats, fever, bruising, infection.

TABLE 4
INDICATIONS FOR TREATMENT IN CLL

1. Progressive lymphocytosis
2. Progressive lymphadenopathy
3. Progressive organomegaly
4. Anemia
5. Thrombocytopenia
6. Stage II, III, or IV disease
7. The development of immunologic complications

IV is lymphocytosis with thrombocytopenia ($<100,000/\text{mm}^3$) with or without organomegaly. The frequency and severity of systemic symptoms (weakness, weight loss, fever, sweats, bruising, bleeding, infections) increase with the stage. The median survival of patients with stage 0 is greater than 12 years; stage I and II, approximately six years; and stage III and IV, approximately 18 months. Women and younger patients had a better prognosis than men and elderly patients, but this was less significant than stage. The prognostic predictability of this staging system was reliable whether staging was done at the time of diagnosis or established after progression.

Although some patients are diagnosed in a truly indolent asymptomatic stage 0 and have a relatively good prognosis, the disease usually progresses to active or symptomatic disease. In the majority of patients with active disease (stages I-IV), the prognosis and survival are poor and complacency with regard to treatment cannot be justified.

INDICATIONS FOR TREATMENT

There is no agreement as to specific criteria that are definitive indications for treatment of CLL. There are no data, as yet, indicating that the treatment of indolent stage 0 or I disease will prevent progression to the more aggressive stage III or IV disease. A series of tentative criteria is presented in Table 4, but it is by no means rigid. There is more general agreement that aggressive stage III or IV disease should be treated, but what type of treatment and how aggressive it should be varies among authors.

CLL is responsive to many modes of therapy such as alkylating agents and radiation therapy (radiophosphorus, total body radiation or thymic radiation). Reduction of the lymphoid mass occurs in the majority of treated patients, but complete normalization of marrow and peripheral blood (complete remission) only occasionally occurs.¹³ However, when a complete remission is obtained, it is frequently of prolonged duration and

TABLE 5
COMPARATIVE SURVIVAL IN THE LEUKEMIAS

Type of Leukemia	Median Survival
Chronic lymphocytic	2.5-6 years
Chronic myelocytic	3-4 years
Acute lymphocytic	5 years
Acute myelocytic	1 year

seems to be associated with prolongation of survival. Huguley¹⁴ has reported the median duration of complete remission to be 69 months and survival to be greater than 117 months.

The survival of patients with CLL can be put into perspective by comparing it to the other leukemias (Table 5). The survival with CLL is essentially the same as that with chronic myelocytic leukemia. What is more startling is that the median survival of CLL is in the same range as that for acute lymphocytic leukemia of childhood treated by modern methods. Thus, several facts become apparent. CLL is not an indolent disease, but it is often an aggressive disease of poor prognosis. Recent data indicate that survival may be increased with treatment. Complete remissions can be obtained and tend to be long lasting and of significant benefit to the patient with respect to survival. Complacency regarding treatment of CLL is outdated and more vigorous innovative treatment is indicated.

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Present Status of Head and Neck Cancer Treatment

ADVANCES have been made in the control of head and neck squamous cell carcinoma over the past two decades by using improved surgical and radiotherapeutic techniques with an expanding knowledge of when and how to combine these modalities to achieve the greatest advantages of each with the least disadvantages. This improved control has been limited to the tumor involvement above the

Although surgical and radiotherapeutic techniques have increased the regional control rate of advanced head and neck cancer, increasing numbers of patients are dying later of distant metastasis. To attempt to improve long-term survival of these patients, adjuvant systemic treatment should be used immediately after regional treatment has eradicated all clinically detected tumor. Dr. Johnston is Associate Director, Department of Surgery, Ellis Fischel State Cancer Hospital and Cancer Research Center. This investigation was supported in part by Clinical Cancer Training Grant CA-08018 from the National Cancer Institute.

clavicle. Wang observed an improved three-year survival rate in his general review of treatment of head and neck cancers (Table 1).¹

With optimal use of both of these regional treatment modalities, a regional tumor control rate of 80% to 85% may be obtained above the clavicle as illustrated by data from M. D. Anderson Hospital (Tables 2 and 3).² Patients are living longer after this combined regional therapy, but increasing numbers of patients are dying later of distant metastases. Thus, no significant improvement is evident in the five-year survival rate.²

A systemic modality of treatment is the logical choice to try to decrease this incidence of deaths due to distant metastases. Chemotherapy or immunotherapy or combinations of the two are the systemic modalities available that need evaluation in this effort to decrease deaths resulting from distant metastasis.

PRESENT STATUS OF REGIONAL TREATMENT

Regional treatment of head and neck cancer is that treatment delivered to only the head and neck region. Historically, this has been the only treatment delivered to a patient with head and neck cancer until he showed either distant metastases or a recurrence in the head and neck region which could not be treated with the usual regional modalities, which are surgery or radiation therapy. This regional treatment of head and neck cancers has been improved technically over the past two decades. This improvement has been largely a result of the increasing capability of the radiotherapist with supervoltage roentgenotherapy and with more refined techniques in utilizing better equipment.

At first, the surgeons were reluctant to accept the role of the radiotherapist in the initial treatment of potentially curable head and neck cancers. Because the radiotherapist was able to show results equal in tumor control of smaller primary tumors (T1 and T2) with generally less morbidity, radiotherapy was accepted as an initial form of treatment and not one to be used solely for recurrence after surgery had done all it could.

When the primary tumor is large (T3 or T4) or the cervical node metastasis is multiple or bulky or

TABLE 1
RESULTS OF ADVANCED CARCINOMA (T3 AND T4)
TREATED BY RADIATION THERAPY ALONE VS
COMBINED IRRADIATION AND SURGERY

Site	Radiation Therapy Alone (No. NED Over No. Treated)	% NED at 3 Yrs.	Radiation Therapy and Surgery (No. NED Over No. Treated)	% NED at 3 Yrs.
Oral cavity	13/127	10	17/32	53
Oropharynx	12/100	12	13/21	62
Supraglottis	26/117	22	54/107	50

Data adapted from: Wang, C. C.: Radiation Therapy for Head and Neck Cancers. *Cancer* 36:748, 1975.

TABLE 2

FATE OF 195 PATIENTS WITH CANCER OF THE
TONSILLAR FOSSA—BASE OF TONGUE,
1954-1965,* AT FIVE YEARS

	Radiation Therapy (138 Patients) (74% N ₂ , N ₃) %	Combined Surgery and Radiation Therapy (57 Patients) (88% N ₂ , N ₃) %
No evidence of disease	28	28
Primary failure	28	12
Neck failure	5	7
Distant metastases	12	19
Complications of treatment	4	11
Other causes	23	23

* 13 additional patients treated by surgery only.

Reprinted with permission from: Jesse, R. H. and Lindberg, R. D.: The Efficacy of Combining Radiation Therapy With a Surgical Procedure in Patients With Cervical Metastasis From Squamous Cell Cancer of the Oropharynx and Hypopharynx. *Cancer* 35:1163-1166, 1975.

fixed (N2 or N3), then it is advantageous to use a combination of both surgery and radiation therapy in these advanced head and neck cancers. Again, some surgeons found this fact difficult to accept. One of the classic articles which encouraged more general acceptance of this principle was Strong's report that preoperative radiation therapy before radical neck dissection decreased recurrence in the neck from 71% to 37% when there were positive nodes at multiple levels in the operative specimens (Table 4).³ This fact and other data indicate that regional control is improved for large primary tumors and for large or multiple neck nodes when surgery and radiation therapy are combined. It has become more accepted that combined treatment does integrate the advantages of each modality and

TABLE 3

FATE OF 116 PATIENTS WITH CANCER OF
THE PYRIFORM SINUS, 1954-1965,* AT FIVE YEARS

	Surgery (67 Patients) (75% N ₂ , N ₃) %	Combined Surgery and Radiation Therapy (49 Patients) (82% N ₂ , N ₃) %
No evidence of disease	22	33
Primary failure	15	10
Neck failure	15	4
Distant metastases	22	27
Complications of treatment	8	10
Other causes	18	16

* 21 additional patients treated by radiation only.

Reprinted with permission from: Jesse, R. H. and Lindberg, R. D.: The Efficacy of Combining Radiation Therapy With a Surgical Procedure in Patients With Cervical Metastasis From Squamous Cell Cancer of the Oropharynx and Hypopharynx. *Cancer* 35:1163, 1975.

does minimize the possibility of failure of each.

The most frequent failure of radiation therapy alone is with large, invasive tumors in which the radiation cannot eradicate the poorly oxygenated cells within the center of the tumor bulk. On the other hand, surgery is most successful in treating the large bulky tumor that can be seen and felt, around which the surgical margins are judged. The most frequent failure of surgery is with tumors that exhibit lymphatic permeation, perineural invasion and microscopic metastasis within multiple small lymph nodes. Such lesions cannot be seen or felt during surgery. Radiation therapy is highly successful in eradicating this microscopic disease.

Surgeons and radiotherapists at M. D. Anderson Hospital were the earliest proponents for the routinely planned use of this combined treatment and

TABLE 4

RESULTS IN HEAD AND NECK CANCER WITH CERVICAL METASTASIS USING SURGERY ALONE
VS PREOP RADIATION PLUS SURGERY

	<i>Control</i>		<i>Radiated</i> <i>(2000 rads/5 days)</i>		<i>Other</i>	
Total number of patients	204		144		72	
Histologically positive nodes	129	63.2%	104	72.7%	51	70.8%
Recurrence at primary site	50	24.5	25	17.4	14	19.5
Recurrence in neck	75	36.8	34	23.6	25	34.7
Recurrence in neck with negative nodes	5/75	6.7	0/40	0.0	0/21	0.0
Recurrence in neck with positive nodes	70/129	54.3	34/104	33.4	25/51	49.1
Recurrence in neck with nodes positive one level	23/63	36.5	14/50	28.0	6/23	26.1
Recurrence in neck with nodes positive multiple levels	47/66	71.3	20/54	37.1	19/28	67.9
Minimal survival rate 3 years	49.7%		46.7%		53.9%	

Reprinted with permission from: Strong, E. W.: Preoperative Radiation and Radical Neck Dissection. *Surg. Clin. N. Am.* 49:271, April, 1969.

TABLE 5

FAILURE OF INITIAL TREATMENT OF METASTATIC
SQUAMOUS CELL CANCER IN THE IPSILATERAL
SIDE OF THE NECK

(All Primary Sites: 1948 through 1967)

Treatment	Failure
Radiation	54/292 (18.5%)
Surgery alone	51/199 (25.6%)
Combined	8/105 (7.6%)

Data adapted from: Barkley, H. T. Jr., Fletcher, G. H., Jesse, R. H., and Lindberg, R. D.: Management of Cervical Lymph Node Metastases in Squamous Cell Carcinoma of the Tonsillar Fossa, Base of Tongue, Supraglottic Larynx, and Hypopharynx. *Am. J. Surg.* 124: 462, 1972.

TABLE 6

SUPRAGLOTTIC LARYNGEAL CANCERS
(N₂-N₃) (55 CASES)

	Surgery + Postoperative Radiation Therapy (21)	Surgery Alone (35)
Local and lymph nodes recurrences	8.5%	36%
2-Year survival without evidence of cancer	71%	38%

Data adapted from: Fletcher, G. H.: Larynx and Pyriform Sinus. *Textbook of Radiotherapy*. Philadelphia, Lea & Febiger, 1973, pp. 255-287.

have made numerous reports on its advantages in controlling regional tumor (Tables 5,⁴ 6 and 7⁵). The treatment failure rate above the clavicle has been greatly decreased by the use of combined treatment as compared to single modality treatment. This resulted in an impressive increase in the two-year survival rate (Table 6). However, the five-year survival rate was not improved (Table 7).

Analyses of cases suggest the reason for this lack of improvement is that greater numbers of these patients are dying of distant metastases and additional numbers are dying of second primary cancers. Head and neck cancer patients who have multiple or fixed cervical metastatic nodes and who have had their regional tumors controlled successfully stand a 20% to 33% chance of dying of distant metastases, depending on primary site, histology and degree of metastatic cervical node involvement. It seems likely that distant metastases are due to presence of microscopic cancer beyond the regional area at the time of regional treatment. If this is true, more aggressive regional treatment has no chance of improving the survival of these patients. Although efforts will and should continue

TABLE 7

HYPOPHARYNGEAL CANCERS (56 CASES)

	Surgery + Postoperative Radiation Therapy (21)	Surgery Alone (35)
Supraclavicular lymph node recurrences	28.5%	57%
5-Year survival	24%	23%

Data adapted from: Fletcher, G. H.: Larynx and Pyriform Sinus. *Textbook of Radiotherapy*. Philadelphia, Lea & Febiger, 1973, pp. 255-287.

to improve regional control of these advanced head and neck cancers, the literature suggests that these efforts are not resulting in increased long-term survival rates.

PRESENT STATUS OF SYSTEMIC TREATMENT

Chemotherapy has been given to patients with head and neck cancers so extensive that conventional regional therapy (surgery or radiotherapy or both) would not be effective and to patients with advanced recurrent tumor or distant metastases or both. These efforts with chemotherapy in otherwise untreatable head and neck cancer has revealed that single agent chemotherapy employing either hydroxyurea, cyclophosphamide, bleomycin or methotrexate has produced objective remissions (>50% regression in measured tumor size) in 30% to 40% of patients. These responses last only one to five months.⁶ Of these single agents, methotrexate has been the most extensively studied and proved agent in treatment of advanced head and neck cancer.⁷

Livingston and Carter's complete review indicates no advantage of regional infusion over systemic use of methotrexate.⁸ Friedman *et al* combined methotrexate with irradiation, but they could not prove any synergistic effect on the survival rate.⁹ Adler *et al* have advised against using methotrexate simultaneously with irradiation because of the exaggerated mucosal reaction in the irradiated area.¹⁰ Healy *et al* obtained a 54% objective response rate in 52 cases of advanced head and neck cancer.¹¹ Their work with varying dose schedules of methotrexate has shown that a weekly time schedule of moderately high doses has fewer toxic effects than more frequent smaller doses. This provided additional confirmation of the conclusion by Leone *et al* that the most effective dosage of methotrexate was 60 mgm/m² once a week by rapid intravenous (IV) administration.

Presently there are efforts to obtain greater response rates using high-dose methotrexate with citrovorum factor rescue. Initially, many oncologists were enthusiastic about this new approach. At present, however, there is no definite indication that it has a long-term advantage over the weekly IV administration of the highest tolerated dosage of methotrexate (approximately 60 mgm/m²).¹²

Immunotherapy is the other systemic form of treatment available. Calmette-Guerin bacillus (BCG) has been given to many human patients, causing a boost in the immunologic reactivity as measured by means of skin tests evaluating delayed hypersensitivity and by laboratory procedures evaluating lymphocyte function. Many other forms of immunotherapy are being developed in hope of producing more specific tumor-related immune responses.

At present, the largest amount of data on immunotherapy concerns BCG. Many studies of various types of tumors in humans are now indicating a correlation between improved prognosis and increase in immunocompetence. BCG increases immunocompetence, and it seems logical to try to stimulate a patient's immunocompetence at the most opportune moment which is when the tumor burden is at its lowest, which should occur immediately following conventional treatment that has removed all clinically detectable tumor. BCG has proved useful in this situation (no gross tumor detectable), but it has not successfully increased immunocompetence in the presence of a large or increasing tumor burden.¹³ Unfortunately, there are not good data indicating that BCG has been helpful in head and neck cancer. Two reasons can be postulated for this. First, it has been used only in patients with tumor that was otherwise untreatable. It has not been adequately tried in an adjuvant setting when there is no gross tumor detectable. Second, BCG usually has been directed to the extremities or the trunk and away from the lymph node drainage area of the head and neck region. It appears from data concerning other tumors that the BCG must be placed so that it drains into the primary lymph node drainage area of the tumor being treated.

RATIONALE FOR ADJUVANT SYSTEMIC TREATMENT

Combined regional treatment utilizing surgery and radiation therapy for advanced head and neck cancers has appeared to reach a plateau in terms of long-term survival rates. Systemic treatment utilizing chemotherapy and immunotherapy has

been extensively studied in experimental animals and through extensive clinical trials in patients with tumor involvement that was not potentially curable by conventional regional treatment. These efforts have shown that head and neck cancers are responsive to chemotherapy in approximately 50% of the cases.

By use of clinical and pathological staging, we are able to select patients with advanced head and neck cancers who have approximately a 20% to 33% chance of dying of distant metastases even if their advanced regional tumor involvement is controlled. These patients deserve a trial of a systemic form of treatment to aid in eradication of microscopic disease that may be present below the clavicles at the time of the regional treatment and, hopefully, also to eradicate microscopic cancer that may remain in the regional area after completion of the regional treatment.

Both experimental animal studies and clinical trials with chemotherapy and immunotherapy have shown that the greatest benefit is obtained when the tumor burden is the lowest. Therefore, this adjuvant systemic treatment should begin immediately after the regional treatment has eradicated all clinically detectable tumor. The theoretical basis for this approach is sound and clinical trials are being reported in other solid tumors that indicate a therapeutic advantage to this approach. These trials include the increased survival rate of children with Wilms' tumor who have received adjuvant dactinomycin¹⁴ and single drug adjuvant chemotherapy (L-PAM) in operable cancer of the breast with positive axillary nodes as reported by Fisher *et al* of the National Surgical Adjuvant Breast Project.¹⁵ More recently, Bonadonna observed an impressive gain in the prolonged disease-free interval in women treated with three drugs as an adjuvant after radical mastectomy for operable breast cancer.¹⁶

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Malignant Melanoma—Identification of High Risk Groups

ALTHOUGH MALIGNANT MELANOMA is often considered a rare tumor, the Ellis Fischel State Cancer Hospital sees an average of 40 new cases per year. Melanoma has the reputation of being one of the most deadly of the malignant diseases. Despite this notoriety, melanoma is curable in its early stages. The natural history of this disorder has been studied in detail because primary and often metastatic lesions are on the skin and can be easily seen and followed. The developmental biology of this disease has been described by Clark *et al*¹ and McGovern,² and it is now becoming apparent that it is inappropriate to regard all melanomas to be of equal malignant potential. By the use of certain histologic and gross pathologic features, physicians may determine which patients are at high risk of recurrence and death from their disease. This group at high risk requires therapy in addition to surgical excision.

CLARK'S LEVELS

The depth a melanoma penetrates the dermis correlates with the frequency of regional node in-

volvement and prognosis (Table 1). Level I melanoma or melanoma in situ is a lesion confined to the epidermis. At the present time, most pathologists are unwilling to make a diagnosis of melanoma in situ because of the prognostic implications and because, as yet, it cannot be determined how many of these lesions will progress to infiltrating metastasizing malignant melanoma. Level II lesions extend into the papillary dermis and are associated with a low percentage of regional lymph node involvement and an excellent five-year survival. With progressive dermal penetration through the papillary dermis and into the reticular dermis, the frequency of regional lymph node involvement increases and the prognosis becomes correspondingly poorer. Transition between lesions associated with a good prognosis and lesions associated with a very poor prognosis occurs with the extension of the tumor to the papillary reticular dermal interface. These lesions are frequently associated with positive regional nodes. When positive regional nodes are involved, the five-year survival rate drops significantly from those lesions at the same level without regional node involvement. If a lesion penetrates into the subcutaneous tissue (level V), frequency of regional node involvement is very high and the corresponding five-year survival rate is almost zero. Since there are such strong clinicopathological correlations between Clark's levels of dermal penetration and prognosis, these levels must be considered in any rational approach to the treatment of primary malignant melanoma. These therapeutic implications will be discussed later in some detail.

HISTOLOGIC TYPES OF MELANOMA

The histologic types of melanoma are listed in Table 2. *Superficial spreading melanoma* (SSM) is the most common, accounting for 70% of all melanomas. It is a potentially curable lesion if diagnosed early. About one third of SSMs present with level II invasion. The developmental biology of SSM has been extensively studied by Clark and others.³ This lesion has a prolonged, relatively be-

Patients at high risk of recurrence and, ultimately, death from malignant melanoma can now be identified. Also, an extensive study of the natural history and developmental biology of several histologic types of melanoma shows that they are not all of equal malignant potential. If the factors influencing prognosis are ignored, patients with melanoma may be overtreated or undertreated. The authors discuss approaches to adjuvant therapy. Dr. Kardinal is Director of Internal Medicine and Dr. Carolla is Consultant to Ellis Fischel State Hospital. Dr. Carolla also is Assistant Professor of Medicine, University of Missouri School of Medicine. This investigation was supported by Western Cancer Study Group Grant CA-06800 awarded by the National Cancer Institute, DHEW.

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(See next page for prescribing information.)

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A brief summary of the Prescribing Information for
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WARNING—Lasix (furosemide) is a potent diuretic which if given in excessive amounts can lead to a profound diuresis with water and electrolyte depletion. Therefore, careful medical supervision is required, and dose and dose schedule have to be adjusted to the individual patient's needs. (See under "Dosage and Administration.")

Indications—Lasix (furosemide) is indicated for the treatment of the edema associated with congestive heart failure, cirrhosis of the liver, and renal disease, including the nephrotic syndrome.

Hypertension—Lasix (furosemide) may be used for the treatment of hypertension alone or in combination with other antihypertensive drugs. Hypertensive patients who cannot be adequately controlled with thiazides will probably also not be adequately controllable with Lasix (furosemide) alone.

CONTRAINDICATIONS—Because animal reproductive studies have shown that Lasix (furosemide) may cause fetal abnormalities, the drug is contraindicated in women of childbearing potential. (See "Additional Information.")

Lasix (furosemide) is contraindicated in anuria. If increasing azotemia and oliguria occur during treatment of severe progressive renal disease, the drug should be discontinued. In hepatic coma and in states of electrolyte depletion, therapy should not be instituted until the basic condition is improved or corrected. Lasix (furosemide) is contraindicated in patients with a history of hypersensitivity to this compound.

Warnings—Excessive diuresis may result in dehydration and reduction in blood volume, with circulatory collapse and with the possibility of vascular thrombosis and embolism, particularly in elderly patients. Excessive loss of potassium in patients receiving digitalis glycosides may precipitate digitalis toxicity. Care should also be exercised in patients receiving potassium depleting steroids.

Frequent serum electrolyte, CO₂, and BUN determinations should be performed during the first few months of therapy and periodically thereafter, and abnormalities corrected or the drug temporarily withdrawn.

In patients with hepatic cirrhosis and ascites, initiation of therapy with Lasix (furosemide) is best carried out in the hospital. Sudden alterations of fluid and electrolyte balance in patients with cirrhosis may precipitate hepatic coma; therefore, strict observation is necessary during the period of diuresis. Supplemental potassium chloride and, if required, an aldosterone antagonist are helpful in preventing hypokalemia and metabolic alkalosis.

Patients should be observed regularly for the possible occurrence of blood dyscrasias, liver damage, or other idiosyncratic reactions.

In those instances where potassium supplementation is required, an oral liquid preparation should be used rather than enteric-coated potassium salts.

There have been several reports, published and unpublished, concerning nonspecific small-bowel lesions consisting of stenosis, with or without ulceration, associated with the administration of enteric-coated thiazides with potassium salts. These lesions may occur with enteric-coated potassium tablets alone or when they are used with nonenteric-coated thiazides, or certain other oral diuretics.

These small-bowel lesions have caused obstruction, hemorrhage, and perforation. Surgery was frequently required, and deaths have occurred.

Available information tends to implicate enteric-coated potassium salts, although lesions of this type also occur spontaneously. Therefore, coated potassium-containing formulations should be administered only when indicated and should be discontinued immediately if abdominal pain, distention, nausea, vomiting, or gastrointestinal bleeding occurs.

Patients with known sulfonamide sensitivity may show allergic reactions to Lasix (furosemide).

Precautions—As with any potent diuretic, electrolyte depletion may occur during therapy with Lasix (furosemide), especially in patients receiving higher doses and a restricted salt intake. Electrolyte depletion may manifest itself by weakness, dizziness, lethargy, leg cramps, anorexia, vomiting, and/or mental confusion.

Asymptomatic hyperuricemia can occur and gout may rarely be precipitated. Reversible elevations of BUN may be seen. These have been observed in association with dehydration, which should be avoided, particularly in patients with renal insufficiency.

When parenteral use of Lasix (furosemide) precedes its oral use, it should be kept in mind that cases of tinnitus and reversible hearing impairment have been reported. There have also been some reports of cases in which irreversible hearing impairment occurred. Usually, ototoxicity has been reported when Lasix (furosemide) was injected rapidly in patients with severe impairment of renal function at doses exceeding several times the usual recommended dose and in whom other drugs known to be ototoxic were often given. If the physician elects to use high dose parenteral therapy in patients with severely impaired renal function, controlled intravenous infusion is advisable (for adults, it has been reported that an infusion rate not exceeding 4 mg Lasix [furosemide] per minute has been used).

Increases in blood glucose, and alterations in glucose tolerance tests with abnormalities of the fasting and two-hour postprandial sugar have been observed, and rare cases of precipitation of diabetes mellitus have been reported.

Lasix (furosemide) may lower serum calcium levels, and rare cases of tetany have been reported.

Patients receiving high doses of salicylates, in conjunction with Lasix (furosemide) may experience salicylate toxicity at lower doses because of competitive renal excretory sites.

Diuretics such as furosemide may enhance the nephrotoxicity of cephaloridine. Therefore, Lasix (furosemide) and cephaloridine should not be administered simultaneously.

Sulfonamide diuretics have been reported to decrease arterial responsiveness to pressor amines and to enhance the effect of tubocurarine. Great caution should be exercised in administering curare or its derivatives to patients undergoing therapy with Lasix (furosemide), and it is

advisable to discontinue Lasix (furosemide) for one week prior to any elective surgery.

Adverse Reactions—Various forms of dermatitis, including urticaria and rare forms of exfoliative dermatitis, erythema multiforme, pruritus, paresthesia, blurring of vision, postural hypotension, nausea, vomiting, or diarrhea.

Anemia, leukopenia, aplastic anemia, and thrombocytopenia (with purpura). Rare cases of agranulocytosis which responded to treatment.

In addition, the following rare adverse reactions have been reported; however, relationship to the drug has not been established with certainty: sweet taste, oral and gastric burning, paradoxical swelling, headache, jaundice, thrombophlebitis and emboli and acute pancreatitis.

Lasix (furosemide)-induced diuresis may be accompanied by weakness, fatigue, lightheadedness or dizziness, muscle cramps, thirst, increased perspiration, urinary bladder spasm, and symptoms of urinary frequency.

Dosage and Administration ADULTS

The usual adult dose of Lasix (furosemide) is 20 to 80 mg given as a single dose.

If the diuretic response with a single dose of 20 to 80 mg is not satisfactory, the following schedule should be used: Increase this dose by increments of 20 or 40 mg not sooner than 6 to 8 hours after the previous dose until the desired diuretic effect has been obtained. This individually determined single dose should then be given once or twice daily. The dose of Lasix (furosemide) may be carefully titrated up to 600 mg per day in those patients with severe clinical edematous states.

With doses exceeding 80 mg/day and given for prolonged periods, careful clinical and laboratory observations are particularly advisable.

Hypertension—The usual dose of Lasix (furosemide) is 40 mg twice daily both for initiation of therapy and for maintenance. Careful observations for changes in blood pressure must be made when this compound is used with other antihypertensive drugs, especially during initial therapy. The dosage of other agents must be reduced by at least 50 percent as soon as Lasix (furosemide) is added to the regimen to prevent excessive drop in blood pressure. As the blood pressure falls under the potentiating effect of Lasix (furosemide), a further reduction in dosage, or even discontinuation, of other antihypertensive drugs may be necessary. It is further recommended, if 40 mg twice daily does not lead to a clinically satisfactory response, to add other hypotensive agents, e.g., reserpine, rather than to increase the dose of Lasix (furosemide).

INFANTS AND CHILDREN

Pediatric Administration: The usual initial dose of oral Lasix in infants and children is 2 mg/kg body weight, given as a single dose. If the diuretic response is not satisfactory after the initial dose, dosage may be increased by 1 or 2 mg/kg not sooner than 6 to 8 hours after the previous dose. Doses greater than 6 mg/kg body weight are not recommended.

For maintenance therapy in infants and children, the dose should be adjusted to the minimum effective level.

How Supplied—Lasix Tablets 40 mg (furosemide) supplied as white, round, monogrammed, scored tablets.

Lasix Tablets 20 mg (furosemide) supplied as white, oval, monogrammed tablets.

Note: Dispense in dark containers. Exposure to light may cause slight discoloration which, however, does not alter potency.

Additional Information

Toxicology

The acute toxicity of Lasix (furosemide) has been determined in mice, rats, and dogs. In all three animal species, the oral LD₅₀ of Lasix (furosemide) exceeded 1000 mg/kg of body weight, while the intravenous LD₅₀ ranged from 300 to 680 mg/kg. Intragastric injection of the drug in newborn rats resulted in an LD₅₀ of 380 mg/kg.

The acute toxicity of high doses of Lasix (furosemide) was characterized by convulsions, paralysis, and collapse. Surviving animals often became dehydrated and depleted of electrolytes due to the diuresis induced by Lasix (furosemide). In the newborn rats, intragastric injection of the drug caused hyperactivity and anorexia.

Chronic toxicity studies with Lasix (furosemide) were done in rats and dogs. In a one-year study in rats, renal tubular degeneration occurred, with all doses higher than 50 mg/kg (4 times the maximal recommended human dose of 600 mg per day). A six-month study in dogs revealed calcification and scarring of the renal parenchyma at all doses above 10 mg/kg (83 percent of the maximal recommended human dose of 600 mg per day).

Reproductive Studies

The effects of Lasix (furosemide) on embryonic and fetal development and on pregnant dams were studied in mice, rats, and rabbits.

Lasix (furosemide) caused unexplained maternal deaths and abortions in the rabbit when 50 mg/kg (4 times the maximal recommended human dose of 600 mg per day) was administered between days 12 to 17 of gestation. In a previous study the lowest dose of only 25 mg/kg (2 times the maximal recommended human dose of 600 mg per day) caused maternal deaths and abortions. In a third study, none of the pregnant rabbits survived a dose of 100 mg/kg. Data from the above studies indicate fetal lethality which can precede maternal deaths.

The results of the mouse study and one of the three rabbit studies also showed an increased incidence of hydronephrosis (distention of the renal pelvis and, in some cases, of the ureters) in fetuses derived from treated dams as compared to the incidence in fetuses from the control group.



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TABLE 1

CLARK'S LEVELS OF DERMAL PENETRATION
(SURVIVAL AND NODE DATA REFER TO SSM)

Level	% Regional Nodes Involved	% 5-Year Survival
I. Confined to the epidermis (melanoma in situ)	0	100
II. Extends into the papillary dermis	0-4	81
III. Extends to the papillary- reticular dermal interface	25	70 Neg nodes 30 Pos nodes
IV. Invades the reticular dermis	36	20
V. Penetrates into the subcutaneous tissue	70	0-5

nign *radial growth phase* followed by a more aggressive and more malignant *vertical growth phase*. The description of the radial growth phase has been one of the most important in the understanding of the developmental biology of malignant melanoma.

Lentigo malignant melanoma (LMM) is the least aggressive form of melanoma. LMM tends to remain superficial for long periods and metastasizes late in the course of the disease. LMM is most common in elderly patients in sun-exposed areas of skin and is frequently on the face. These lesions are often quite large (several centimeters) with central areas of depigmentation. LMM has the best prognosis for cure.

Nodular melanomas (NM) are the most aggressive. These lesions present without having gone through a clearly identifiable radial growth phase. These lesions usually have penetrated to Clark's level IV or V at the time of diagnosis. NM has the poorest prognosis for cure.

Subungual, volar surface (plantar and palmar) and mucosal melanomas are generally associated with a poor prognosis. Despite the fact that these lesions do undergo definite radial and vertical growth phases, they usually first present in an advanced stage.

TABLE 3

CLINICOPATHOLOGIC STAGING OF
MALIGNANT MELANOMA

Stage	5-Year Survival %
I. Localized primary melanoma	52.6
II. Metastases to regional nodes	23.0
III. Disseminated disease	8.2

TABLE 2

	% of Cases
Superficial spreading melanoma (SSM)	70
Nodular melanoma (NM)	12
Lentigo malignant melanoma (LMM)	10
Subungual and volar melanoma	6
Mucous membrane melanoma	2

OTHER PROGNOSTIC FACTORS

Breslow⁴ has correlated the maximal *thickness* of the primary lesion with survival. This seems to be a variable independent of the level of penetration. Lesions with a maximal thickness of <0.76 mm are associated with an excellent prognosis. Lesions of >1.5 mm in thickness are associated with a 50% recurrence rate, and lesions of >2.25 mm have a 75% chance of recurrence.

Clinicopathologic stage (Table 3) at diagnosis correlates highly with prognosis,⁵ and the necessity for staging all patients at diagnosis cannot be over emphasized. An adequate staging workup includes a careful physical and neurological examination, blood chemistry profile, hemogram, chest x-ray and liver scan. Many other procedures may be required if clinically indicated, such as bone and brain scans and urinary melanin.

Other factors influencing prognosis have been reviewed by DeVita and Fisher.⁶ The prognosis in women, regardless of stage, may be better than men. Distal extremity lesions have a better prognosis than lesions arising on the trunk or head and neck. And in patients with metastatic melanoma, individuals with cutaneous recurrences do much better than patients with visceral (liver, lung, brain) disease. Ulceration and bleeding of the primary lesion also are poor prognostic signs.

The factors influencing prognosis in malignant melanoma are listed in Table 4. The most important factors are the histologic type, the level of

TABLE 4

FACTORS INFLUENCING PROGNOSIS
IN MALIGNANT MELANOMA

1. Histologic type—SSM, LMM, NM, etc.
2. Clark's level of dermal penetration
3. Thickness of the primary lesion
4. Clinicopathologic stage
5. Site of the primary lesion—extremity lesions do better than truncal or head and neck
6. Sex: Women may have a better prognosis than men
7. Site of metastases. Dermal metastases are associated with a better prognosis than viseeral

TABLE 5
CHARACTERISTICS OF HIGH RISK GROUPS

1. Level III lesions with positive nodes
2. All level IV and level V lesions
3. Lesions >1.5 mm in greatest thickness
4. All clinicopathologic stage II disease
5. All nodular melanomas
6. All volar, subungual, and mucosal melanomas

dermal penetration, the thickness of the primary lesion and the clinicopathologic stage at the time of diagnosis. Characteristics of high risk groups for recurrence and ultimately death from their disease are outlined in Table 5. Patients who have lesions with these characteristics are prime candidates for some type of adjuvant therapy with an immune-enhancing or cytotoxic agent. Characteristics of cases at low risk for recurrence and death from their disease are outlined in Table 6. Lesions with these characteristics are associated with a high cure rate with surgery alone. These multiple variables all must be considered in the design of prospective clinical trials. They also must be considered in interpreting the results of any study evaluating a new form of treatment.

THERAPEUTIC IMPLICATIONS

The therapeutic implications of these data may be summarized as follows: (1) patients at low risk of recurrence are often overtreated with too radical a surgical procedure and (2) patients at high risk are often undertreated at the time of initial presentation.

It is the opinion of Goldman⁷ that low risk LMM (level II and III) should be treated with excision and primary closure, if possible, and that the treatment for low risk SSM (level II and thin level III) should be a wide local excision with skin grafting. Neither of these groups requires a regional node dissection or adjuvant therapy.

The appropriate primary therapy for high risk groups is more complex. There is no uniformity of opinion among various authorities. The only thing generally agreed upon is that surgery alone is probably not adequate treatment. These patients should have regional node dissections. Whether node dissections are therapeutic or merely important in staging is actively debated.⁸ But, the presence of positive nodes greatly influences the decision in favor of further treatment.

Varieties of programs evaluating surgical adjuvant chemotherapy and immunotherapy are current-

TABLE 6
CHARACTERISTICS OF LOW RISK GROUPS

1. LMM—Levels II and III
2. SSM —All level II lesions
—Level III lesions <0.76 mm in thickness

ly in progress.⁹ Treatment programs evaluating bacille Calmette-Guérin (BCG) vaccine, DTIC or a combination of these agents are most common. Morton *et al*¹⁰ have reported an increased disease-free interval in high-risk patients treated with BCG vaccine as a surgical adjuvant, but their studies were uncontrolled and the various risk factors listed in Table 4 were not always considered. Gutterman *et al*¹¹ have reported good results with the combination of BCG + DTIC, but their data suffer from some of the same problems as those of Morton *et al*.¹⁰ The most appropriate adjuvant therapy remains unsettled.

PROSPECTS FOR THE FUTURE

Therapeutically, perhaps, we have gone as far as we can based upon the data available, and the clinical application of more basic research techniques may well be required before any further progress can be made. The kinetics of the cell cycle of malignant melanoma cells have been evaluated. It has also been determined that the cells can be made to synchronize by the use of various chemotherapeutic agents such as bleomycin.¹² By altering the cell cycle, hopefully, the tumor can be made more susceptible to other cytotoxic drugs. This is difficult in the human. Through the use of the Sinclair Swine melanoma model,¹³ however, new therapeutic procedures are being proposed that take into account growth kinetics, cell cycle times and other factors. Hopefully, through the use of this model, sound adjuvant programs can be devised that will be useful in the treatment of patients at high risk of recurrence and death from this dread disease.

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NESTOR R. CANOY, M.D. and
MARY LEE, M.D., *Columbia*

Epidermoid Carcinoma of the Skin of the Head and Neck

SKIN CANCER is by far the most common type of malignant disease. It is a highly curable cancer. The basal cell carcinoma, although stubbornly and deeply invasive at times, practically never metastasizes. Inflammation may accompany these tumors and may account for the lymphadenopathy. The epidermoid carcinoma, which is often well-differentiated and low grade in activity, may be confined to the epidermis without infiltration in depth. In some instances, however, it is highly invasive, and inadequate therapy will lead to a catastrophe as exemplified by the following case illustration.

CASE REPORT

A 71-year-old white man with a 2 cm x 2 cm infiltrating, mid-differentiated epidermoid carcinoma of the naso-malar area was treated with 160 KV, 0.25 mm Cu filter x-ray beam to a total dose of 3,500 R in five fractions over 11 days with good response. He had a recurrence five years later presenting as a 1.5 cm x 1.5 cm ulcerative lesion. This was treated with another course of x-ray therapy using 140 KV, 0.25 mm Cu filter in the first half of the treatment and 200 KV with 0.5 mm Cu filter in the second half to a dose of 5,000 rads in 20 fractions over 29 elapsed days. A boost was given three weeks later with 140 KV x-rays to a total dose of 1750 r/7 fractions/9 days. He still responded well to these treatments, but there was another recurrence two years later with invasion of the maxillary bone for which he underwent a right maxillectomy. A fourth recurrence was documented three years after the maxillectomy in the infraorbital and nasal margins of the surgical limits. It was treated with a combination of mould radium therapy and Co-60. He responded very

poorly and experienced secondary necrosis and infection. He finally died of pneumonia during the course of his radiotherapy.

Comment: The original lesion was quite small and there was no way to determine the depth of infiltration from the biopsy since it was an incisional biopsy. Epidermoid carcinoma of the skin often has microscopic extension as far as 1 cm beyond the gross tumor margin. In a study of inadequately excised epidermoid carcinoma, Glass and Perez-Mesa¹ showed 50% recurrences of lesions inadequately excised in width and 73% recurrences of lesions inadequately excised in depth. In many instances, skin cancers are treated with superficial x-ray beam (either with 100 KV or 140 KV with light filtration) and the dosages are expressed in given (surface) doses. In the literature, there are now ample reports indicating that 1 cm to 2 cm lesions of squamous cell carcinoma may be controlled in 90% of the cases if the dose is raised to 6,000 rads in six weeks to the entire volume. In this particular case, the dose at a depth of 2 cms was, by present standards, below the umbrella dose required.

ANALYSIS OF CLINICAL MATERIAL

Seventy-seven cases of epidermoid carcinoma of the skin of the head and neck which were seen and treated at the Ellis Fischel State Cancer Hospital (EFSCH) from 1950 to 1972 were reviewed and analyzed. The highest age incidence is between the ages of 70 to 90 years (Table 1). The sex incidence is 60 men to 17 women or 3.52 : 1. Twenty-six of seventy-seven or 33% of the patients had multiple lesions (Table 2). The most common site was the cheek (Table 3). Seventy percent of the patients were farmers. These data lend credence

TABLE 1
AGE DISTRIBUTION

Age in Years	No. of Cases
30 to 40	3
41 to 50	0
51 to 60	15
61 to 70	24
71 to 80	41
81 to 90	40
91 and over	10

TABLE 2
MULTIPLE LESIONS

No. of Lesions	No. of Cases
2	13
3	3
4	3
5	3
6	1
8	1
9	1
14	1

TABLE 3
DISTRIBUTION BY LOCATION

Location	No. of Cases	Location	No. of Cases
Cheeks	31	Malar	9
Neck	22	Nose	9
Ears	17	Infraauricular	8
Temporozygomatic	17	Eyelid	4
Postauricular	13	Forehead	2
Preauricular	12	Occipital	1
Lips (skin only)	10		

to the conclusion that, like in basal cell carcinoma, the actinic rays of the sun contribute to the formation of epidermoid carcinoma of the skin.

The most common presentation was ulceration. The most common cellular differentiation was the mid-differentiated type (Table 4). However, in the well-differentiated types, there were equal numbers of ulcerative and superficial or keratotic presentations.

Unlike basal cell carcinoma, epidermoid carcinoma of the skin metastasizes. In this series, only five cases or 6.5% of the patients had palpable and histologically positive lymph nodes on initial presentation. There was no correlation between histological differentiation and nodal involvement (Table 5). The size of the lesion may be a factor, although the largest lesion recorded (25 cm x 17 cm) involved the neck and anterior chest and had no clinically palpable lymph nodes. Six patients experienced recurrence in the regional lymph nodes at four to eight months after excision of the primary. Reporting 411 cases of epidermoid carcinoma, Katz *et al*² found that 3.6% of these cases had lymph node metastases.

In some instances, the metastases do not follow a regular pattern. The primary lesion may respond completely to external radiation and the secondary lesion may not, as illustrated by the following case report.

CASE REPORT

A 97-year-old white woman had a 2 cm x 3 cm ulcerative and exophytic lesion in the left malar area of two-years duration that started as a wart-like lesion. The histological diagnosis was a mid-differentiated epidermoid carcinoma. A 2 cm x 2 cm fixed node was present in the superior jugular chain. No node could be felt in the pre-auricular area. The patient refused surgery and she was treated with Co-60 using a pair of oblique wedged fields which encompassed the primary lesion to include the mid-jugular nodes. A total dose of 5,000 rads to the volume in 25 fractions was delivered over 35 elapsed days with the primary lesion

TABLE 4
PRESENTATION: CLINICAL AND HISTOLOGICAL

Presentation	No. of Cases
Ulcerative	73
Nodular	30
Exophytic	29
Superficial or keratotic	29
Well-differentiated	39
Mid-differentiated	99
Poorly-differentiated	20

bolused to obtain maximum skin scatter. The lesion and the palpable node were then treated with 1.3 mm Cu HVL orthovoltage x-ray using a cone at 21 cm TSD with an additional dose of 1,250 rads at a depth of 2 cm.

At completion of treatment, the node was hardly palpable and a moderate epidermitis with good regression of the lesion was noted in the primary site. At six-weeks follow-up, the primary lesion had completely disappeared and the area had healed well, but the superior jugular node had regrown to a 1.5 cm size. The patient underwent a modified neck dissection eight weeks after her treatments and the node showed a mid-differentiated epidermoid carcinoma histologically. Nine weeks after her neck dissection, she developed a 2 cm x 2 cm fixed node in the left supraclavicular area with an inflammatory appearance. The biopsy showed the same histology.

Comment: Note the contrast in response between the primary lesion and the involved lymph nodes. The lesion was just adjacent to the pre-auricular node, but there was no involvement of this node. A prophylactic dose of 5,000 rads Co-60 was given to the lower neck nodes. Despite this, the patient returned with a positive lymph node below the field of radiation. Obviously, there must have been deposits of malignant cells in this node initially, but they were not clinically appreciable. The nodal pattern of this case shows a very aggressive type of epidermoid carcinoma which is uncommon.

LESIONS TREATED PRIMARILY BY SURGICAL EXCISION

One hundred and seven lesions were excised primarily and 85% of these measured 2 cm or less.

TABLE 5
CORRELATION BETWEEN HISTOLOGICAL
DIFFERENTIATION, SIZE, AND
LYMPH NODE METASTASES

Location	Size (cms.)	Histology	Lymph Node Metastases
Left cheek	6 x 6	Mid-diff	Submandibular
Left malar	3 x 1.5	Mid-diff	Superior jugular
Left neck	2.5 x 5	Mid-diff	Cervical nodes
Post neck	10 x 13	Poorly-diff	Cervical nodes
Right ear	3 x 5	Mid-diff	Cervical nodes (6 x 10 matted)

Epidermoid carcinoma of the skin of the head and neck is curable with the use of surgery or radiotherapy. When it metastasizes or becomes deeply invasive, however, the prognosis may be poor if therapy is inadequate. Lowered immunological competence of the patient many have an effect on this disease's aggressive behavior. The authors are from the Department of Radiation Therapy, Ellis Fischel State Cancer Hospital. Dr. Canoy is Director of the Department. This investigation was supported in part by Clinical Cancer Training Grant CA-08018 from the National Cancer Institute.

Twenty-three recurrences were recorded with a recurrence rate of 21.3%. Six of twenty-three or 26% were associated with lymph node metastases. Studying 18 cases of epidermoid carcinoma, Glass and Perez-Mesa³ reported the period of risk to be three years with 90% of the recurrences in the first two years in contrast to the period of risk for basal carcinoma which they reported at eight to ten years. In this series in which excision was the primary treatment, the period of risk ranged from three months to 11.3 years. Ten of 23 or 43.6% recurred within two years and the median period of recurrence was 3.25 years. Most of the recurrences were treated by re-excision and 19/23 or 82.6% had no evidence of disease at 4.17 to 20 years at last follow-up or death from other causes. Four patients had more than one recurrence. Also, it is interesting to note that in two cases, the second recurrence occurred five and 6.65 years after the second excision. Among those with recurrences associated with nodal metastases, 4/6 or 66.6% died of distant metastases. One patient had a small lesion which recurred with invasion into the maxillary bone. The patient died with pulmonary metastases 20 months after the maxillectomy.

LESIONS PRIMARILY TREATED WITH RADIATION

Thirty-nine lesions were treated primarily with radiation, using either x-ray or Co-60. There was an equal number of cases with sizes less than 2 cm and greater than 2 cm. The largest lesion (25 cm x 17 cm) was located in the neck and anterior chest. Eight of the lesions or 20.5% measured greater than 24 sq cm. Lesions measuring 2 cm or less were readily cured using radiation therapy, and cosmetic results were better than those with sur-

gery. The recurrence rate was 21.4% with the risk period ranging from two months to 20 years. There were equal numbers of cases recurring within and after the two-year period. The recurrences were usually in the edge of the field and could be either a geographic miss or a dysplasia following radiation that developed into another malignancy years later. For instance, dysplastic changes of the uterine cervix will take from 20 to 25 years to develop into an invasive cancer of the cervix. The results of radiotherapy could even be improved with higher dosages since many of these cases were treated with modest dosages using light-filtered low KV x-rays. There is now ample evidence from the literature that 1 cm to 2 cm of squamous cell carcinoma will require at least 6,000 rads as an umbrella dose to the entire cancer volume. Like those treated primarily by surgical excision, 90% of the recurrences in this group were controlled by re-excision or with a second course of radiotherapy. Eight of 11 cases or 72.7% of large lesions ranging from 6 sq cm to 425 sq cm had no evidence of recurrence at three to 25 years at the last period of follow-up or death from other causes. Four of the eight cases or 50% required surgery following radiotherapy after a good reduction in the size of the lesion. Three of 11 cases that recurred or 27.2% could not be controlled and the patients died of secondary infection or dissemination.

IMMUNOLOGICAL RELATIONSHIP

There are reports of spontaneous regression of epitheliomata.^{4,5} Regression of spontaneously appearing tumors had remained a mystery until immunologists and the light microscopy joined forces. It is now known that the immune system functions as a regulator in our bodies, destroying what it considers a foreign body. Cancer itself may alter the immunocompetence of the host and, eventually, the host succumbs to the disease. There is reason to suspect that this is true in some of the cases that we reviewed as exemplified by this case illustration.

CASE REPORT

A 76-year-old white man with a 2 cm ulcerative mid-differentiated squamous carcinoma in the helix of the right ear was treated with x-ray, but the lesion recurred five years later. This was treated by partial resection of the ear. The following year, which was six years after the appearance of the first lesion, he developed a 0.3 cm mid-differentiated carcinoma of the left cheek which was excised. This recurred three years later and was re-excised with good control. The third lesion appeared one year after the second lesion as a 1 cm nod-

ular mid-differentiated carcinoma of the left lower eyelid. It was treated with x-ray with very good control, but it recurred two years later with orbital invasion.

An exenteration was done but the patient died of disseminated disease.

CONCLUSION

Epidermoid carcinoma of the skin of the head and neck is a highly curable lesion either by surgery or radiotherapy. It has a very low propensity for metastases or invasion. When it becomes invasive or when it metastasizes to lymph nodes, however, the prognosis becomes bad. Local recurrences are still highly curable either by surgery or radiation. Large lesions are best treated by radiotherapy

followed by surgery. Radiotherapy definitely offers a better cosmetic result than surgery. There is reason to believe that the lowered immunological competence of the patient may have something to do with the aggressive behavior of this cancer.

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Precautions: Do periodic serum electrolyte determinations (particularly important in patients vomiting excessively or receiving parenteral fluids). Periodic BUN and serum creatinine determinations should be made, especially in the elderly, diabetics, or those with suspected or confirmed renal insufficiency. Watch for signs of impending coma in severe liver disease. If spiro-lactone is used concomitantly, determine serum K^+ frequently; both can cause K^+ retention and elevated serum K^+ . Two deaths have been reported with such concomitant therapy (in one, recommended dosage was exceeded, in the other serum electrolytes were not properly monitored). Observe regularly for possible blood dyscrasias, liver damage, other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving Dyrenium® (triamterene, SK&F Co.), and

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Adverse Reactions: Muscle cramps, weakness, dizziness, headache, dry mouth; anaphylaxis, rash, urticaria, photosensitivity, purpura, other dermatological conditions; nausea and vomiting, diarrhea, constipation, other gastrointestinal disturbances. Necrotizing vasculitis, paresthesias, icterus, pancreatitis, xanthopsia and, rarely, allergic pneumonitis have occurred with thiazides alone.

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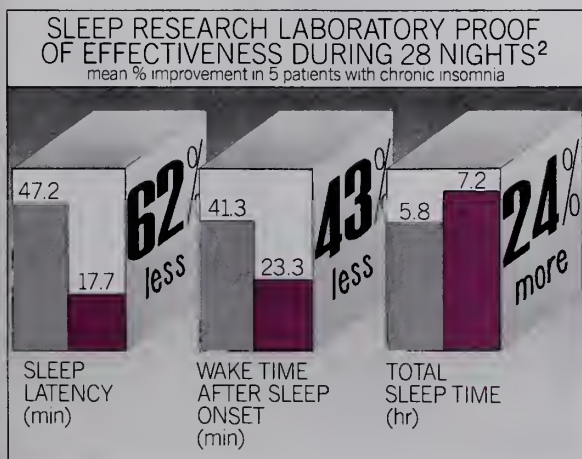


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Not recommended for use in persons under 15 years of age. Though physical and psychological dependence have not been

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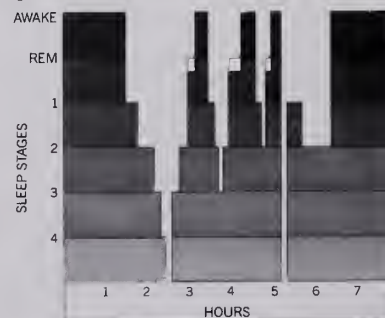
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President's Message

An era of long-standing will end on January 1, 1977. By this, I refer to the fact that long-time MSMA Executive Secretary, Raymond McIntyre, will retire.

There are many people in the Missouri State Medical Association who do not know or remember that Ray was first made Executive Secretary in 1942 and served in that position until called into Service in 1944. Upon his return, he initiated the idea of a field service for the Association and was named Field Secretary. Incidentally, the MSMA was the first State Association to establish a field service and many other State Associations have followed suit in the forthcoming years.

Ray did a tremendous job as Field Secretary and is responsible for combining several small county societies into larger, hyphenated societies which could better serve their physician members. About 15 years later, he again became Executive Secretary and has been so ever since. Since that time, he has done much to make the office of the Missouri State Medical Association the best in the country, according to my way of thinking.

About ten years ago, the headquarters office of the MSMA was moved to Jefferson City. There were many comments against the move, chiefly in regard to the expense. It is worthwhile to record that the MSMA now owns its own building, which is mortgage- and debt-free. This is just one of Ray's accomplishments during his years of service.

I know all of you join with me in extending best wishes to Ray and Martha for a wonderful retirement.

A new era will start with Royal Cooper taking over as Executive Secretary. He has an excellent background and has been well-trained by Raymond McIntyre. Again, I know that all members of the Missouri State Medical Association wish for Royal a tremendous and brilliant future in his new position. He has an excellent Staff and I am sure the Council will help him in every way possible.

Also, Gertrude and I wish for each and every member of the Missouri State Medical Association and the Staff a very joyous holiday season.



Max S. Franklin, M.D.

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113 Madison
Jefferson City, Missouri 65101

Dear Doctor:

"Missouri physicians encouraging and helping Missouri young people to attend medical school" states the purpose and goal of the Missouri State Medical Foundation, which has provided more than 1,440 loans to Missouri medical students since 1960.

We take this opportunity to express appreciation to the practicing physicians in Missouri for their generosity in making these loans available throughout the years. However, additional money is still needed to provide all the loans we would like to make to assist students.

We of the Missouri State Medical Association can and must continue to fill the need for physicians by providing loans to medical students who are residents of our state. I am certain that you do not want the Foundation to turn away any deserving student because of our lack of funds.

This is an excellent time to make your 1976 gift since we are near the close of the tax year.*

Please refer to the additional information about the MSMF on page 684 of this issue and send your check now. Make it payable to the Missouri State Medical Foundation and mail it to Box 1029, Jefferson City 65101.

Sincerely yours,

Albert D. Cross, M.D.

President

SPONSORED BY THE MISSOURI STATE MEDICAL
ASSOCIATION

* The Missouri State Medical Foundation is classified by the International Revenue Service under Section 509(a)(3). Individuals may deduct up to 50% of their adjusted gross income for contributions made to the MSMF.



Woman's Auxiliary

*"The World is round,
And the place which may seem like the end
May also be only the beginning."*

—IVY BAKER PRIEST

The Bicentennial year is coming to a close. It has been a year of re-flection, re-assessment and re-direction. We have celebrated the resultant action of that heterogeneous group who recognized a need for survival which could be found only through complete restructuring of untenable conditions.

Two centuries in the future, historians may well describe 1976 as a turning point in the American system. A new game plan will soon be offered. Some of the players will change, but the challenge continues uninterrupted. The goal remains, solidly rooted in the concepts of free enterprise as described in our Bill of Rights.

As with our forefathers, the complexities surrounding our existence become increasingly oppressive. The profession of our partners is encumbered at every turn by new limitations; the freedom to practice is obscured by bureaucratic confusion.

The uncertainties of the future make our responsibilities very clear for no one of us can afford the luxury of isolation from the realities confronting us. We will start anew to protect the integrity of medicine through our individual and united efforts. The MSMA Auxiliary will do its best to encourage its members to be informed and, then, to be involved in those ways which provide positive impact. These members recognize the contributions they can provide as women whose energies, interests and knowledge can educate others and increase understanding of the dangerous dilemmas facing medicine.



**Mrs. George P. Wilson
President**

Dr. Jack Matthews, Chairman of the MSMA Committee on Legislative Affairs, spoke at the MSMA Interim Session last month. He stresses the importance of these coming months. Missouri's delegation to Washington has experienced a 50% turnover, while our state leaders in the Missouri legislature represent 30% new membership. Our husbands are faced with the task of making medicine's position clear. We can join them in support of continued strong and constructive medical legislation. We can assist them in communicating with our legislators through personal community involvement.

A new year approaches and with it a new dedication. We can be confident that the many blessings we share will stand us in good stead. We are thankful that in a world where governmental control is the rule, our country stands alone in preserving the rights of the individual. We cherish that freedom which allows us to achieve whatever goal we choose.

County Society News

FIRST DISTRICT

COUNCILOR

JOHN N. MARTIN, M.D., ST. JOSEPH

BUCHANAN COUNTY MEDICAL SOCIETY

For the 21st consecutive year, members of the Buchanan County Medical Society and the St. Joseph Bar Association met jointly. Eighty-one physicians and attorneys attended the dinner and program on November 3 at Moila Country Club.

Presiding jointly were J. William Roberts, president of the Bar Association, and Dr. Edmund W. Kline, Vice-President of the Medical Society.

Mr. Roberts introduced the speaker, Judge Norwin Houser, Commissioner of the Missouri Supreme Court in Jefferson City. Judge Houser delivered a humorous and well-received discussion on the foibles and merits of the medical and legal professions.

Mrs. Houser accompanied her husband and was a special guest at the event.

CARL K. NESS, M.D., *Secretary*

GRAND RIVER MEDICAL SOCIETY

The Grand River Medical Society met at the Chillicothe Country Club on October 14. A social hour preceded the dinner.

The guest speaker was Don Wald, M.D., a practicing radiologist in Liberty, who gave an interesting discussion on C.A.T. scans and of diagnostic ultrasound techniques.

There were seven Society members and six Auxil-

iary members present.

After the scientific session, a business meeting was held. The Nominating Committee presented the slate of officers and delegates for 1977, and members voted unanimously to elect the slate of officers as presented.

They are Drs. Merriam Gearhart, Bethany, President; R. Hamilton Staton, Carrollton, Vice-President; William L. Fair, Chillicothe, Secretary-Treasurer; and Frank R. Daley, Hamilton, Program Chairman.

MSMA Delegates elected are Drs. Frank R. Daley, Caldwell County; E. Warren Allen, Carrollton, Carroll County; J. Larry Dowell, Pattonsburg, Daviess County; Fred K. Wilson, Winston, DeKalb County; Albert D. Cross, Trenton, Grundy County; Merriam Gearhart, Harrison County; John R. Dixon, Brookfield, Linn County; Thomas N. Cofer, Chillicothe, Livingston County; and Ralph W. Bohnsack, Brookfield, Mercer County.

Alternate Delegates elected for 1977 are Drs. John Platz, Carrollton; Edward E. Nixon, Gallatin; Oliver Duffy, Trenton; Watkins A. Broyles, Bethany; Billy D. Howell, Brookfield; and Joseph A. Conrad, Chillicothe.

Following the election of officers, Fred K. Wilson, M.D., was unanimously approved as an Honor Member of Grand River Medical Society, the MSMA and the AMA.

Dr. Watkins A. Broyles of Bethany informed the Society that he will discontinue his active practice as of Dec. 1, 1976. Members regretted to hear this announcement, but all wish him well in his retirement.

WILLIAM L. FAIR, M.D., *Secretary*

GRAND RIVER MEDICAL SOCIETY

The Grand River Medical Society met on November 11 at the Chillicothe Country Club. Sixteen Society members and 13 Auxiliary members were present.

The guest speaker was Nelson Brewer, M.D., an internist from the Mayo Clinic. His subspecialty is infectious diseases.

Members of the Auxiliary had as their guests Mrs. George P. Wilson of Columbia, President of the Woman's Auxiliary to the MSMA, and Mrs. W. Jack Stelmach of Kansas City, President-Elect. Dennis Nicks, a fourth-year medical student at the University of Missouri-Columbia, also was a guest.



**Men and Women
Compression
Hosiery**

Support—Sheer &
Surgical Elastic
Pneumatic

From tired legs
to severe
circulatory
disorders



1121 Grand Ave.
Kansas City, Missouri 64106
816 BA 1 0206

The Auxiliary held its annual bake sale for the benefit of the AMA-ERF and raised \$560. "Our hat is off to them."

Since the date of the Christmas meeting would conflict with the AMA meeting in Philadelphia, members voted to change the meeting date to December 16.

WILLIAM L. FAIR, M.D., *Secretary*

SECOND DISTRICT

COUNCILOR

J. RUSSELL COMER, M.D., NEW LONDON

CHARITON-MACON-MONROE-RANDOLPH COUNTY MEDICAL SOCIETY

The Chariton-Macon-Monroe-Randolph County Medical Society held its regular monthly meeting on November 11 in the Library Conference Room of Woodland Hospital in Moberly.

Members in attendance were Drs. Antonio Aguilera, C. C. Cohrs, J. Will Fleming, Jr., T. S. Fleming, L. E. Huber, G. R. Hudson, Jose Hori, Robert Tompson, H. T. Lin, Ruel Miciano and D. C. Yang of Moberly; J. E. Campbell and D. E. Eggleston of Macon; P. V. Dreyer of Huntsville; F. A. Barnett of Paris; and Leopold LaChance of Centralia.

The meeting was called to order by Dr. Eggleston, President. Dr. Hudson gave a report on the Interim Session of the MSMA House of Delegates at Tan-Tar-A Resort, Lake of the Ozarks on November 3-4.

Dr. Curt M. Vogel of Columbia was the guest speaker. His subject was "Fibrotic Endoscopy." He discussed the history of endoscopy and the evolution and development of both endoscopes and techniques.

Dr. Vogel exhibited and demonstrated three types of Fibrotic Endoscopes and discussed the physics of fibrotics, which makes it possible for the endoscopists to see around corners and obtain specimens of diseased tissue from areas previously inaccessible. He also discussed the training necessary to become proficient in endoscopy and mentioned a few facilities where this training is available.

Dr. Vogel showed numerous color slides taken through the scopes to demonstrate various types of both normal and diseased tissues in the digestive tract and lungs.

Dr. C. E. Ridenhour, an associate, accompanied Dr. Vogel to the meeting.

The meeting adjourned at 8:45 PM.

G. R. HUDSON, M.D., *Secretary*

Auxiliary Fall Conference Emphasizes Legislation



(Left to right) Mrs. George P. Wilson, Columbia, President of the Woman's Auxiliary; MSMA President Max S. Franklin, St. Louis; Mrs. W. Jack Stelmach, Kansas City, Auxiliary President-Elect; and Dr. John I. Matthews, Jefferson City, MSMA Chairman for Legislative Affairs.



(Left to right) Guests at the Conference included Sen. Ralph Uthlaut, Jr., 23rd District, and Mrs. Uthlaut, New Florence; and Mrs. Harold Kanagawa and Dr. Kanagawa of Jefferson City. Dr. Kanagawa is President of Cole County Medical Society.

A Legislative Workshop and a banquet honoring state candidates were program features of the Annual Fall Conference of the MSMA Woman's Auxiliary at the Ramada Inn in Jefferson City on October 20-21.

Mrs. George P. Wilson, Auxiliary President, presided at the meeting. Special guests included Gov. Christopher S. Bond; MSMA President Max S. Franklin; MSMA Executive Secretary Raymond McIntyre; Dr. John I. Matthews, MSMA Chairman of Legislative Affairs; and representative and senatorial candidates who were introduced by MSMA and Auxiliary members from their districts.

State Legislative Chairman for the Auxiliary is Mrs. Richard C. Hedges. The Conference also presented a Childhood Protection Seminar and the annual Deans' Luncheon.

(Continued on page 687)

New Members

Richard Michael Mendlick, M.D., St. Luke's Hospital, Kansas City 64111, has become a member of Jackson County Medical Society. Dr. Mendlick is a native of Kansas City, received his preliminary education at the University of Kansas and his M.D. degree at the University of Kansas in 1970. He specializes in orthopedic surgery.

Wayne B. Miles, M.D., 114 N. Taylor, St. Louis 63108 has become a member of St. Louis Medical Society. Dr. Miles is a native of Kansas, received his preliminary education at the University of Kansas and his M.D. degree at the University of Kansas in 1969. He specializes in internal medicine and allergy.

William B. Miller, M.D., 510 S. Kingshighway, St. Louis 63110 has become a member of St. Louis Medical Society. Dr. Miller is a native of New York, received his preliminary education at Northwestern University and his M.D. degree at Northwestern University in 1974. He specializes in radiology.

Earl A. Munyan, M.D., 17221 E. 23rd, Independence 64057 has become a member of Jackson County Medical Society. Dr. Munyan is a native of Penn-

sylvania, received his preliminary education at Princeton University and his M.D. degree at Cornell University in 1951. He specializes in internal medicine (cardiovascular diseases).

George H. Sobky, M.D., 1515 Lafayette, St. Louis 63104 has become a member of St. Louis Medical Society. Dr. Sobky is a native of Egypt, received his preliminary education at Cairo University and his M.D. degree at Cairo University in 1948. He specializes in diagnostic radiology.

Sinasa Surat, M.D., 105 E. Washington, Kennett 63857, has become a member of Dunklin County Medical Society. Dr. Surat is a native of Bangkok, received his preliminary education at Chulalongkorn Hospital University and his M.D. degree at Chulalongkorn Medical School in 1963. He specializes in internal medicine.

Mario K. Yu, M.D., 751 E. 63rd, Kansas City 64110 has become a member of Jackson County Medical Society. Dr. Yu is a native of the Philippines, received his preliminary education at the University of Santo Tomas and his M.D. degree at the University of Santo Tomas in 1965. He specializes in neurology.

In Memoriam

Arthur C. Clasen, M.D., 2301 Collins Ave., Apt. 333A, Miami Beach, Fla. 33139, a graduate of the University of Kansas, 1917; member Jackson County Medical Society; age 84; died Oct. 25, 1976.

Robert L. Lam, M.D., 7777 Bonhamme, St. Louis 63105, a graduate of the University of Michigan, 1944; member St. Louis Medical Society; age 59; died Oct. 30, 1976.

Eugene E. Brown, M.D., 622 S. Hanley Rd., St. Louis 63105, a graduate of the University of Missouri, 1919; member St. Louis Medical Society; age 83; died Nov. 10, 1976.

Michael Dulick, M.D., 9012 Manchester Rd., St.

Louis 63117, a graduate of St. Louis University, 1939; member St. Louis County Medical Society; age 61; died Nov. 3, 1976.

Alton F. Brookerson, M.D., 217 Oak, Poplar Bluff 63901, a graduate of Baylor University, 1933; member Butler-Wayne-Ripley Medical Society; age 69; died Nov. 14, 1976.

Frank P. Gaunt, M.D., 203 W. Cedar Ave., St. Louis 63119, a graduate of the Harvard Medical College, 1911; age 96; died Nov. 17, 1976.

Jean J. Merz, M.D., 12 Clayton Downs, St. Louis 63131, a graduate of St. Louis University, 1930; age 69; died Nov. 26, 1976.

Missouri Voluntary Health Agencies and Organizations

In some instances, patients of MSMA members are eligible to receive assistance from various Voluntary Health Organizations in the state.

Assistance may be in the form of free or subsidized special equipment, rehabilitation training, counseling, specialized care and information and many other areas.

In an effort to assist MSMA members in attain-

ing assistance for their patients, the following list of Voluntary Health Organizations has been compiled. In some cases, a statewide organization is listed. In instances in which an organization is limited to a certain portion of the state, several organizations may be listed under one heading.

This list will be expanded and updated annually.

Arthritis

The Arthritis Foundation,
Eastern Missouri Chapter
P.O. Box 1144
St. Louis 63188
Hal Leichhardt,
Executive Director
Phone: (314) 421-3550

Arthritis Foundation, Inc.,
Kansas City Chapter
2727 Main
Kansas City 64108
Gordon Waller, Executive Director
Phone: (816) 221-5383

Birth Defects

National Foundation, Inc.,
March of Dimes
Suite 2
1310 Business Hwy. 635
Columbia 65101
P.O. Box 1403
Kay Koonce, Field Representative
(North)
Phone: (314) 449-0573

Blind and Sight

Missouri Federation of the Blind
4103 Castleman
St. Louis 63110
Fred C. Lilley, President
Phone: (314) 771-2338

Cancer

American Cancer Society,
Missouri Division, Inc.
715 Jefferson
Jefferson City 65101
Gerald G. Quick, Executive Vice-
President
Phone: (314) 636-3195

Cerebral Palsy

United Cerebral Palsy Association
of Missouri, Inc.
P.O. Box 611, Columbia 65201
Harold Edwards, Exec. Dir.
Phone: (314) 449-2934

Crippled Children

Easter Seal Society for Crippled
Children and Adults of Missouri
8124 Delmar
St. Louis 63130
R. Curtis Ballenger, Executive
Director
Phone: (314) 862-3000

Cystic Fibrosis

Cystic Fibrosis Foundation—
Gateway Chapter
7730 Carondelet
St. Louis 63105
Sally Marshall, Executive Director
Phone: (314) 721-2490

Cystic Fibrosis Foundation
—Heart of America Chapter
Traders National Bank Building
1125 Grand Ave.
Kansas City 64106
Ms. Dorothy K. Pope, Executive
Director
Phone: (816) 842-6434

Diabetes

American Diabetes Association
Heart of America Affiliate, Inc.
415 E. 63rd, Suite 200
Kansas City 64110
Mona Marsh, Director
Phone: (816) 361-3361

American Diabetic Association
Greater St. Louis Affiliate, Inc.
3839 Lindell Blvd.
St. Louis 63108
Ernest E. Sellars,
Executive Director
Phone: (314) 533-4143

Epilepsy

Missouri Epilepsy Federation
2337 S. Kingshighway
St. Louis 63110
Ronald R. Igou, Executive Director
Phone: (314) 771-1212

Greater Kansas City Epilepsy League
Room 301, 4049 Pennsylvania
Kansas City 64111
Ed McGhee, Executive Director
Mrs. Lee Andrews, Associate Director
Phone: (816) 531-1247

Heart

Missouri Heart Association, Inc.
601 E. Broadway
Columbia 65201
Watson W. Dersham,
Executive Director
Phone: (314) 442-3193

Hemophilia

Bi-State Hemophilia Association
3109 S. Grand
St. Louis 63118
Mrs. Charles Fagan
Phone: (314) 771-6080

Home Health Care

Missouri Association for
Social Welfare
411 Madison
Jefferson City 65101
Mary B. Epstein,
Executive Secretary
Phone: (314) 634-2901

Kidney

Kidney Foundation of Eastern
Missouri and Metro East
7 North Brentwood Blvd.
St. Louis 63105
Tina Amato, Executive Director
Phone: (314) 863-5858

Kidney Foundation of Greater
Kansas and Western Missouri
3600 Broadway, Suite 25
Kansas City 64111
Larry J. Kist, Executive Director
Phone: (816) 531-3760

Lung

American Lung Association of
Eastern Missouri
411 N. 7th
St. Louis 63101
Mark M. Garkovich,
Executive Director
Phone: (314) 241-1554

American Lung Association of
Western Missouri
2007 Broadway
Kansas City 64108
William Pfeifer, Executive Director
Phone: (816) 842-5242

Mental Health

Mental Health Association in Missouri
411 Madison
Jefferson City 65101
Phone: (314) 635-7139

Multiple Sclerosis

Multiple Sclerosis Society,
St. Louis Area Chapter
Suite 540, Beaumont Bldg.
3720 Washington
St. Louis 63108
John A. Alvey, Executive Director
Phone: (314) 652-0900

Multiple Sclerosis Society, National,
Greater Kansas City Area Chapter
6501 Johnson Dr.
Shawnee Mission, Kan. 66202
(Mailing Address: P.O. Box 5213,
Kansas City, Mo. 64112)
Charles W. Stanford,
Executive Director
Phone: (913) 432-3926

Mid-Mo Chapter of National
Multiple Sclerosis Society
802 E. Broadway
P.O. Box 1071
Columbia 65201
Mrs. Jill Wigman, Executive Director
Phone: (314) 443-2029

Greene County Chapter
(Serves Southwest Missouri)
Suite 106
4920 S. Lewis
Tulsa, Okla. 74105
Louise Mail, Executive Director
Phone: (918) 742-7391

Muscular Dystrophy

Missouri Valley Chapter Muscular
Dystrophy Association
3947 Stateline
Kansas City 64111
Glen A. Farasy, Director
Phone: (816) 931-7750

Muscular Dystrophy Association of
America, Inc.
308 W. Commercial
Springfield 65803
Arvil Beckerdite, Director
Phone: (417) 866-5117

Muscular Dystrophy Association, Inc.,
Mississippi Valley Chapter
1023 South Big Bend Blvd.
St. Louis 63117
Kent Hornberger, Director
Phone: (314) 644-2828

Myasthenia Gravis

Myasthenia Gravis Foundation,
Inc., Kansas City Chapter
P.O. Box 5204
Kansas City 64112

Mrs. Marilyn Brown, Director
Phone: (816) 276-8310

Pituitary

Human Growth Foundation,
Greater St. Louis Chapter
Box 9959
Kirkwood 63122
Lorene Helton, Secretary
Phone: (314) 429-6893

Public Health

Missouri Public Health Association
P.O. Box 275
Jefferson City 65101
Harry Dawdy, Executive Director
Phone: (314) 751-3641

Red Cross

American Red Cross, St. Louis
Bi-State Chapter
4050 Lindell Blvd.
St. Louis 63108
Marvin Teeter, Manager
Phone: (314) 658-2000

American Red Cross, Greater
Kansas City
3521 Broadway
Kansas City 64111
Robert H. Schuelke,
Executive Director
Phone: (816) 756-2365

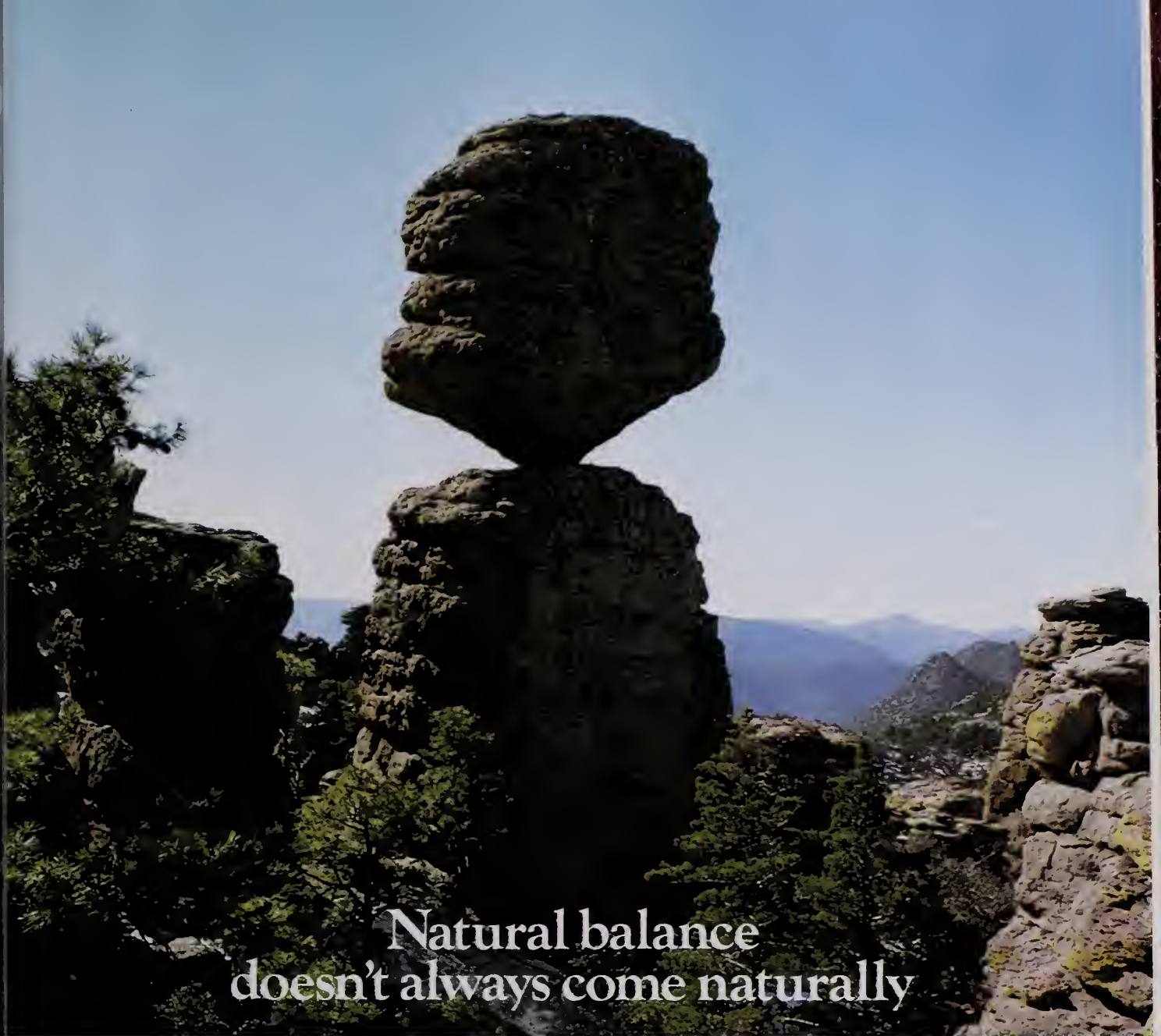
Retarded Children

Missouri Association for Retarded
Citizens, Inc.
230 W. Dunklin
Jefferson City 65101
Harold P. Brown, Executive Director
Phone: (314) 634-2220

**Give now to
your student loan fund!**



Send a Generous Contribution to
Missouri State Medical Foundation
Sponsored by the MSMA



Natural balance doesn't always come naturally

Big Balanced Rock, Chiricahua Mountains, Arizona (approx. 1,000 tons)

- **Most Widely Prescribed**—Antivert is the most widely prescribed agent for the management of vertigo* associated with diseases affecting the vestibular system such as Menière's disease, labyrinthitis, and vestibular neuronitis.
- **Relief of Nausea and Vomiting**—Antivert/25 can relieve the nausea and vomiting often associated with vertigo*.
- **Dosage for Vertigo***—The usual adult dosage for Antivert/25 is one tablet t.i.d.

BRIEF SUMMARY OF PRESCRIBING INFORMATION

*INDICATIONS. Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows:

Effective: Management of nausea and vomiting and dizziness associated with motion sickness.

Possibly Effective: Management of vertigo associated with diseases affecting the vestibular system.

Final classification of the less than effective indications requires further investigation.

CONTRAINDICATIONS. Administration of Antivert (meclizine HCl) during pregnancy or to women who may become pregnant is contraindicated in view of the teratogenic effect of the drug in rats.

The administration of meclizine to pregnant rats during the 12-15 day of gestation has produced cleft palate in the offspring. Limited studies using doses of over 100 mg/kg/day in rabbits and 10 mg/kg/day in pigs and monkeys did not show cleft palate. Congeners of meclizine have caused cleft palate in species other than the rat.

Meclizine HCl is contraindicated in individuals who have shown a previous hypersensitivity to it.

WARNINGS. Since drowsiness may, on occasion, occur with use of this drug, patients should be warned of this possibility and cautioned against driving a car or operating dangerous machinery.

Usage in Children: Clinical studies establishing safety and effectiveness in children have not been done; therefore, usage is not recommended in the pediatric age group.

Usage in Pregnancy: See "Contraindications."

ADVERSE REACTIONS. Drowsiness, dry mouth and, on rare occasions, blurred vision have been reported.

More detailed professional information available on request.

ROERIG 
A division of Pfizer Pharmaceuticals
New York, New York 10017

Antivert[®]/25 
(meclizine HCl) 25 mg. Tablets
for vertigo*



RECENT CHANGES

federal register

**Providing
Drug Information
to Physicians**

**Informational
Bulletin #433-76**

**National
Health
Insurance**

special report
**Malpractice
insurance:**

**drug
bulletin**

**Health care doesn't
need more red tape**

**Drug firms challenge
MAC rules**

**Drug
Substitution**

RESEARCH

Mailgram

THERE ARE A LOT OF PEOPLE GETTING BETWEEN YOU AND YOUR PATIENT.

Medicine today is in the spotlight, subjected to all kinds of scrutiny. Your control over patient therapy is being monitored, judged and occasionally abrogated, sometimes by unknown third parties.

The worry is that in the wake of this focus, the relationship between you and your patient will be weakened, without offsetting benefits. Consider three examples:

Drug substitution In most states, pharmacy laws, regulations or professional custom stipulate that your non-generic prescriptions be filled with the precise products you prescribe. But in the last five years, a dozen or more State laws have been changed, permitting the pharmacist in most cases to select a product of the same generic drug to fill any prescription.

Ironically, this dilution of physician control has taken place against a background of growing evidence that purportedly equivalent drug products may be inequivalent, since neither present drug standards nor their enforcement are optimal. In fact, the FDA itself says it has not enforced the same standards for hundreds of "follow-on" products that it had applied to the original NDA approvals. Thus physician control over patient therapy is being eroded with a risk that patients may be exposed to drugs of uncertain quality.

The major advertised claim for substitution is reduced prescription prices for consumers. Yet no documentation of any significant savings has been produced.

MAC Maximum Allowable Cost, MAC for short, is a Federal regulation designed to cut the Government's drug bill by setting price ceilings for drugs dispensed to Medicare and Medicaid patients. Unless the prescriber certifies on the prescription that a particular product is medically necessary, the Government intends to pay only for the cost of the lowest-priced, purportedly-equivalent,

generally-available product. The effect of the program may be that elderly and indigent patients will be restricted to products which someone in Washington believes are priced right. Practicing doctors will have little to say about administration of the program, since Government will have absolute authority to make its choices stick.

The drug lag The future of drug and device research depends upon a scientific and regulatory environment that encourages therapeutic innovations. The American pharmaceutical industry annually is spending more than \$1 billion of its own funds and evaluating more than 1,200 investigational compounds in clinical research. Disease targets include cancer, atherosclerosis, viruses and central nervous system disorders, among others. But there is a major barrier to the flow of new drugs to your patients: The cost of the research is more than ten times what it was, per product, in 1962; and whereas governmental clearance of new drug applications took six months then, it commonly consumes two years now.

The FDA needs adequate time, of course, to consider data. But it is equally clear that the present approval process contributes to needless delay of needed therapy. That's why the increased efficiency of the drug approval process is vital to all our futures.

If these issues concern you, we suggest that you make your voice heard—among your colleagues and your representatives in State legislatures and in Washington.

It could make a difference in your practice tomorrow.



Pharmaceutical Manufacturers Association
1155 Fifteenth Street, N.W., Washington, D.C. 20005

Missouri State Medical Foundation

Medical Student Loan Fund

To date, 1,440 loans amounting to \$678,757 have been granted to 360 deserving Missouri residents. The need is increasing.

ELIGIBILITY

To be eligible for a loan from the Missouri State Medical Foundation Medical Student Loan Fund, the applicant must:

1. Be a registered full-time student in an American Medical Association accredited school of medicine in the United States, working toward an M.D. degree.
2. Have his home residence in Missouri.
3. Be in need of financial aid to complete his or her medical education.

GENERAL CONDITIONS

1. Loans will be granted by the Missouri State Medical Foundation Student Loan Committee on the basis of financial need of the student and with due consideration of the student's background, references, academic achievement, etc.
2. Loans will be made for any worthy purpose directly connected with furtherance of the student's medical education, including tuition, fees, books, equipment needed for medical education, necessary living expenses while in residence at the school, etc.
3. Ordinarily, the maximum loan for any student for any one school year will be \$1,500. A student holding one or more loans from the Foundation or any similar loan fund shall be eligible to apply for further assistance if the need exists, but such assistance shall not be obligatory on the Foundation Committee.

4. Proceeds of the Loan will be paid to the student for disbursement.
5. Decisions of the Foundation Student Loan Fund Committee in granting of loans will be final.

INTEREST AND REPAYMENT PROVISIONS

1. Loans will bear interest at the rate of 2% per annum from the date of the loan through two years after the date the recipient begins the practice of medicine. Such interest may be paid at the student's option at any time after receipt of the loan, but payment of interest is not obligatory until the principal of the loan becomes due and payable.
2. The principal of the loan, and accrued interest, will become due and payable one year after the date the recipient begins medical practice, with the provision that repayment shall be completed in no more than four additional years from the date and that no less than one fifth of the total original principal, plus accrued interest, shall be due each year.
3. On the date the principal of the loan becomes due, the interest rate on the unpaid balance increases to 4% per annum, and increases by 2% per year thereafter, to a maximum of 8%.
4. The recipient of the loan will have the privilege of prepayment of principal and interest in any amount at any time prior to due date and without penalty.
5. Loans will be secured by a legal note in a form approved by the Foundation Committee. Cosignature is not required.

DO IT TODAY!

Remember that your contribution to the MSMF is tax-deductible. This coupon is for your convenience.

TO: MISSOURI STATE MEDICAL FOUNDATION
Box 1028, Jefferson City, Mo. 65101

I enclose my donation of \$..... for the MSMF STUDENT LOAN FUND.

NAME

ADDRESS

.....
.....

Please Make Checks Payable to Missouri State Medical Foundation.

★ Another popular custom is to include a bequest to the Missouri State Medical Foundation in your last will and testament.

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Eggers, Jr. is Auxiliary chairman of Community Health/Family Health.
John C. Herweg, M.D., associate dean and chairman of the admissions committee, Washington University School of Medicine, was the guest speaker at the Deans’ Luncheon.

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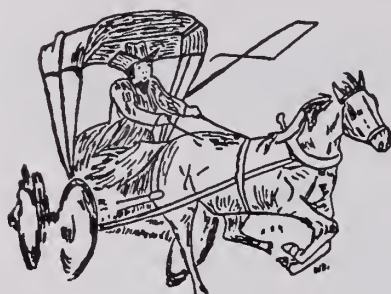
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Missouri Medicine in Review



FORTY YEARS AGO

The annual meeting of the Council of the Missouri State Medical Association was held in Columbia on November 5 with 39 Councilors, officers and committee chairmen present. Dr. A. R. McComas, Surgeon, Chairman, presided. Dr. B. W. Hays, Jackson, was elected chairman of the General Committee on Arrangements for the 1937 Annual Session to be held in Cape Girardeau.

Dr. T. W. Cotton of Van Buren and Dr. J. B. Lutten of Caruthersville were elected members of the Committee. Dr. M. H. Shelby of Cape Girardeau was appointed Chairman of the Local Committee on Arrangements. Dr. F. A. Middlebush, President of the University of Missouri, and the Hon. Frank G. Harris, Lieutenant Governor of Missouri, were guests at the Council's lunch and delivered short addresses.

Some 3,000 persons die each year in this country as a result of accidental injuries by firearms. Of this total, about one half occur in the four months beginning with October and ending with January.

Dr. William T. Coughlin, St. Louis, Head of the Department of Surgery at St. Louis University School of Medicine, was guest of honor at a dinner given by the School on November 12. The dinner was in celebration of Dr. Coughlin's completion of 25 years on the faculty.

TWENTY-FIVE YEARS AGO

More than 2,800 decorations have been awarded

to Army Medical Service personnel for service in the Korean Campaign, according to Maj. Gen. George E. Armstrong, Army Surgeon General. The total includes the first award of the Congressional Medal of Honor which was awarded posthumously to Pfc. Richard G. Wilson, Cape Girardeau, of the Medical Company, 187th Airborne Infantry Regiment.

An oil painting of Dudley S. Conley, M.D., Columbia, Dean Emeritus of the University of Missouri School of Medicine, was presented to the University by alumni of the School of Medicine at a faculty-student assembly in McAlester Hall on November 9. Dr. R. Claude Bruner, president of the School of Medicine Alumni Association, made the presentation.

TEN YEARS AGO

At Washington University, Dr. Oliver H. Lowry and Dr. Janet V. Passonneau were named winners of the Borden Award for their major contributions in the area of nucleotide microbiochemistry in nervous tissues. Dr. Lowry is professor and head of the Department of Pharmacology. Dr. Passonneau is assistant professor of pharmacology.

Dr. Walter F. Ballinger, II, has been appointed Bixby Professor and head of the Department of Surgery at Washington University. Presently an associate professor of surgery and Markle scholar in medical science at Johns Hopkins University School of Medicine, Dr. Ballinger will assume the administrative position on July 1, 1967. He succeeds Dr. Carl A. Moyer, who left to enter private practice in Michigan in 1965 after 15 years as head of the department.

The University of Missouri Medical Center celebrated its Tenth Anniversary. A dedication ceremony for the recently completed addition to the research wing of the Medical Center was held on Sunday in the Medical Center Auditorium. Dr. Robert M. Zollinger, chairman of the Department of Surgery at Ohio State University, presented the W. Alton Jones Surgery Lecture. According to Dean Vernon E. Wilson, "growth" is the one word most accurately describing the Medical Center's first decade.

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tropics seems indicated, carefully consider individual pharmacologic effects, particularly in use of potentiating drugs such as MAO inhibitors and phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions (e.g., excitement, stimulation and acute rage) have been reported in psychiatric patients and hyperactive aggressive children. Employ usual precautions in treatment of anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation have been reported very rarely in patients receiving the drug and oral anticoagulants; causal relation-

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